

THE ILLINOIS MANUFACTURER

THIRD QUARTER 2018



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TABLE OF CONTENTS

THIRD QUARTER 2018

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For address changes and adjustments, write to *The Illinois Manufacturer*. Presort standard postage paid at Bloomington, IL. Postmaster: Send address changes to *The Illinois Manufacturer*, 220 East Adams Street, Springfield, IL 62701. Telephone: (217) 522-1240.

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10 THE KNAPHEIDE MANUFACTURING
COMPANY CELEBRATES 170TH
ANNIVERSARY



16 GOVERNOR RAUNER AND THE IMA
EMBARK ON ILLINOIS TRADE MISSION
TO POLAND AND GERMANY

BY ANASTASIA LOWENTHAL

FEATURES

FROM THE IMA

Elections Have Consequences.....	4
America's Role in the Global Economy.....	6
A Curious Proposal.....	14

ENERGY & ENVIRONMENT

What Energy Purchasing Strategy is Best for Managing Risk?.....	7
Clean Construction or Demolition Debris and Uncontaminated Soil Fill: What You Need to Know.....	18
Take Your Lighting to the Next Level with Lighting Controls and LED Bulbs.....	24

GOVERNMENT REGULATION & LEGISLATION

How to Navigate Employee Salary History Through the Equal Pay Act.....	8
Major Change in Air Permitting Policy: Reduce Your Compliance Burdens.....	15
New Developments in Environmental, Health and Safety Regulations.....	20
Workplace Immigration Compliance Enforcement Increasing in 2018.....	26

HR & BUSINESS DEVELOPMENT

Why Young People Don't Want Our Jobs and What We Can Do About It.....	12
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INNOVATION, TECHNOLOGY, & SECURITY

Industry 4.0 and the Next Era of Manufacturing.....	22
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RECOGNITIONS

Member News.....	27
New IMA Members.....	30

ELECTIONS HAVE CONSEQUENCES

GREGORY W. BAISE, CEO



By publication time of this article, the ramifications of the Supreme Court decision known as *Mark Janus vs. AFSCME* will have been talked about and analyzed by hundreds of pundits, labor-law professors and critics on both sides of the political spectrum.

The impact on public-sector unions here in Illinois and 25 other states is not yet known, but most likely it will weaken membership and significantly reduce the political influence these unions have come to enjoy for the last four decades.

Your view of this decision is most likely influenced by your political orientation and location. Half the country which reside in so-called right-to-work states will not care or worry about the impact on their states' economy. Those of us in the other half of the country will care, and for good reason.

I have watched the rise of the public-sector unions in Illinois during my 40-year involvement in Illinois state government. In 1973, then-Governor Dan Walker signed an Executive Order granting collective bargaining rights to employees under his control. Public-sector unions were then allowed to represent workers in grievance matters. **(Note: Walker signed that executive order because then-Mayor Richard J. Daley opposed any legislative action that would have formally granted collective bargaining rights to public employees.)**

The big change came in 1983, when my former boss, mentor and friend Governor Jim Thompson supported and signed into law the right for public employees and teachers to collectively bargain. And with it came the right to automatically deduct "fair share" union dues from employees, a federal law from the 70's.

OVERALL, 15.2 PERCENT OF ILLINOIS WORKERS ARE REPRESENTED BY A UNION. IN THE PRIVATE SECTOR, A LITTLE OVER 10 PERCENT OF WORKERS ARE REPRESENTED. IN THE PUBLIC SECTOR, 55 PERCENT OF THE WORKFORCE IS COVERED. BUT IN STATE GOVERNMENT, MORE THAN 90 PERCENT OF THE WORKFORCE IS NOW UNIONIZED.

The result in Illinois has been significant. The rise in political influence of public-sector unions on government at all levels in Illinois has increased enormously. Wage and benefit negotiations are now conducted with public officials, who know their stance in such discussions will be used by the unions in the next election to support them or defeat them.

Whether it is employee benefits, pensions, workers compensation coverage or regulations in the workplace, the tide in the public sector has clearly shifted in favor of organized labor.

Consider the following: overall, 15.2 percent of Illinois workers are represented by a union. In the private sector, a little over 10 percent of workers are represented. In the public sector, 55 percent of the workforce is covered. But in state government, more than 90 percent of the workforce is now unionized.

A state employee like Mark Janus paid \$663 in dues annually but was not a union member. So, his argument was that his free speech was being violated because he had no say on how his "fair share" contributions were being spent in political campaigns on stances taken by the unions in matters of legislation.

In real-world terms, the concentration and the combination of all public-sector unions' contributions make their influence outsized against other competing interests which are much more disparate.

Governor Rauner has called this a "corrupt bargain" and supported the effort to get this issue to the U.S. Supreme Court. A majority of the Supreme Court agreed, stating: *"Compelling individuals to mouth support for views they find objectionable violates that cardinal constitutional command, and in most contexts, any such effort would be universally condemned."*

The ramifications of this decision will have long-lasting impacts on the political direction of Illinois and the nation. Expect pro-union forces to introduce legislation in the Illinois General Assembly in a slippery effort to negate the effects of the ruling. Expect such legislation to pass easily with the large majorities of Democrats in Springfield.

Governor Rauner would most certainly veto such legislation. J.B. Pritzker would certainly sign such legislation if he wins in November.

Elections have consequences. ♦



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AMERICA'S ROLE IN THE GLOBAL ECONOMY

MARK DENZLER, COO



Over the past few months, the terms “tariffs” and “trade” have entered the lexicon of the American public and media. For the average person, these terms probably evoked a yawn or eye roll but with President Donald Trump’s announced tariffs on the heels of months of threats, the possibility of a trade war is trumpeted in the daily news cycle. Whether it’s the imposition of new tariffs on China or the European Union, the threat of unwinding the North American Free Trade Agreement, or pulling out of the World Trade Organization, Americans are now paying attention and wondering what impact these actions could have on their lives or businesses.

Manufacturers have long understood the importance of trade and the need for fairness. According to the National Association of Manufacturers, *“while both manufacturing production in the United States and U.S. manufactured exports have quadrupled over the last 25 years, far too many countries distort markets and engage in unfair and discriminatory trade practices to grow their industries at the expense of others.”*

Exports are critical to the Illinois and American manufacturing economy. With more than 95 percent of the world’s consumers living outside of U.S. borders, Illinois companies cannot ignore global trade. According to the U.S. Census Bureau, manufacturing companies are driving trade by exporting more than \$54.8 billion worth of goods in 2016. Fifty-seven percent of Illinois exports were shipped to free trade agreement partners, the vast majority going to our neighbors in Canada and Mexico. The International Trade Administration reports that 325,000 Illinois jobs supported these exports, the fourth largest number in the United States. Trade is critical for the Illinois economy and its manufacturing sector.

NEARLY EVERY PRESIDENT, ILLINOIS GOVERNOR, AND THEIR RESPECTIVE COMMERCE DEPARTMENTS IN THE PAST TWO DECADES HAVE MADE INCREASING EXPORTS A GOAL OF THEIR ADMINISTRATION.

Greg Baise and I had the opportunity to travel with Governor Bruce Rauner on his trade mission late this spring to Poland and Germany. Hosted by Intersect Illinois and the Illinois Department of Commerce & Economic Opportunity, this jobs mission focused exclusively on manufacturing – both Foreign Direct Investment and how these countries are addressing the workforce challenge prevalent in American manufacturing. We visited dozens of companies, some with current Illinois facilities and others that we hope to attract to the state.

It was a rewarding trip ending with the announcement that the giant HANNOVER MESSE trade show will take its brand outside of Germany for the first time when it joins the International Manufacturing Trade Show (IMTS) in Chicago this September. Announcements of new jobs and investment in Illinois are expected in the coming months resulting from the trade mission, largely due to Illinois’ location, access to water and workforce, and O’Hare Airport. Illinois leaders saw firsthand how the German apprenticeship system allows companies to grow their own workforce. Here at home, the IMA’s Education Foundation and German-American Chamber of Commerce are collaborating on the ICATT Apprenticeship Program to help support Illinois manufacturers who are building their own pipeline of workers.

Nearly every President, Illinois Governor, and their respective Commerce Departments in the past two decades have made increasing exports a goal of their Administration. Trade missions, modernization and continuation of the Export-Import Bank, or the Illinois I-STEP program that helps small manufacturers looking to grow globally are all tools to grow our exports. Elected officials have different ideas about how best to accomplish these goals including the most recent tariffs announced by President Trump.

I’ve spoken to companies who feel passionately on both sides of the trade and tariff issue. The question is not whether we agree on the importance of promoting free and fair trade, but how best to advance these priorities because manufacturing’s continued success relies on it. A trade war will only harm American companies and manufacturing workers. ♦

WHAT ENERGY PURCHASING STRATEGY IS BEST FOR MANAGING RISK?

CONSTELLATION

Whether you're an investor who buys and sells stocks, or an energy manager who's responsible for purchasing energy for a manufacturing facility, market volatility and unpredictability make it next to impossible to make the correct purchasing calls 100 percent of the time.

Just as a sudden, unforeseen conflict in another country can impact the stock price of a company, an unexpected change in the weather can make electricity demand — and consequently, prices — fluctuate.

In both situations, it's common to incorrectly time the market; however, the impli-

Here are two common strategies that manufacturers often use:

1. Fixed Price Point-in-Time Strategy:

Using this strategy, companies can purchase years' worth of power, locking in the current price for the duration of the contract. This method ensures cost certainty over the life of the contract, which can help with long-term budgeting. And if buyers hit the market at the right time, when prices are at or near the low, they will benefit for that entire contract period. Of course, if prices go even lower after they've locked in the price, the contract won't look quite as attractive in the end.

Regardless of the strategy, your company will have to renew at the end of the contract, when prices may be higher than you expect.

A flexible strategy encourages companies to think further into the future. Your company purchases a percentage of load at regular intervals over time, which still provides budget predictability but also allows you to take advantage of market opportunities.

Ultimately, the flexible strategy is designed to offer more risk protection. A company using this approach gets to enjoy the benefits of price declines, as well as the

A FLEXIBLE STRATEGY ENCOURAGES COMPANIES TO THINK FURTHER INTO THE FUTURE. YOUR COMPANY PURCHASES A PERCENTAGE OF LOAD AT REGULAR INTERVALS OVER TIME, WHICH STILL PROVIDES BUDGET PREDICTABILITY BUT ALSO ALLOWS YOU TO TAKE ADVANTAGE OF MARKET OPPORTUNITIES.

cations on an energy buyer can be greater. A long-term investor who makes an ill-timed purchase has the option to simply wait it out. If he holds long enough, he may still be able to make a profit.

Companies that need to purchase energy don't always have that luxury. An energy manager who tries to time the market and makes a purchase right before the price drops lower can't just "wait it out" — the company is locked in to that price for the entire contract term.

The good news is that to get the best energy price, you're not limited to trying to predict the market. There are strategies that companies can use to make smarter purchases — but which approach is best to help manage long-term price risk?

Common Approaches to Energy Procurement

Businesses of all types — commercial and industrial, regional and national — can purchase energy in any number of ways.

2. Flexible Buying Strategy: Alternatively, businesses can use a flexible buying strategy. With this approach, instead of going to market one time and making one big purchase to fulfill the company's needs for a period of years, buyers make multiple purchases over time. So, for example, a company's energy manager could fix the price for 25 percent of its load every six months for two years. This provides the flexibility to respond to market conditions over time, while still achieving budget predictability.

Which Strategy Helps Protect Against Price Volatility?

There are certainly benefits to both energy procurement strategies. Fixed-price contracts provide stability and simplicity, and protect companies from market price changes. Once you make that purchasing decision, you're locked into that price.

However, fixed-price contracts only achieve budget certainty for the short term.

security of knowing that any increases will be mitigated over time.

Every company is unique, but it's worth considering whether your strategy is helping you achieve your business goals, manage risk and achieve budget certainty. For more information about developing a smarter energy procurement strategy, contact Rich Cialabrini at Richard.Cialabrini@exeloncorp.com or 847.738.2510.

Learn more at constellation.com/IMA. ♦



HOW TO NAVIGATE EMPLOYEE SALARY HISTORY THROUGH THE EQUAL PAY ACT

TAFT STETTINIUS & HOLLISTER LLP

The federal Equal Pay Act has long prohibited employers from paying men and women different wages for substantially equal work. At the same time, employers have often avoided liability for paying female workers less than their male counterparts where the employer bases the female worker's salary on her prior salary history.

The national legal trend, however, is moving in favor of curtailing the use of an employee's prior salary history to set future pay. This trend is based upon the premise that using prior salary histories does not relate to job performance or ability and may perpetuate unequal pay disparities between men and women.

Recent Court Cases

Courts across the country appear unable to agree on whether prior salary is a legitimate basis for setting current salary under federal law. As recently as 2017, in *Lauderdale v. Illinois Department of Human Services*, the United States Court of Appeals for the Seventh Circuit (Illinois, Wisconsin and Indiana) reiterated its longstanding position that the use of prior salary histories is not discriminatory under the Equal Pay Act.

However, there have been several other recent cases that have invalidated the use of pay histories. On February 21, 2018, the United States Court of Appeals for the Eleventh Circuit (Alabama, Florida and Georgia) held that an employer's reliance on prior salary and experience may not provide a bias-free basis for wage disparities. In *Bowen v. Manheim Remarketing, Inc.*, Qunesha Bowen sued her employer – the world's largest wholesale automobile auction company – for pay discrimination under the Equal Pay Act and Title VII. Bowen worked for Manheim for three years before being promoted to arbitration manager. Her male predecessor was paid nearly 50 percent more than her in his first year as arbitration manager. And, after six years working as arbitration manager, Bowen still earned only as much as her male predecessor did during his first year in that role. The court held that because Bowen performed as an effective arbitration manager for several years, her prior salary did

not seem to justify treating her differently than her male predecessor. The case was sent to a jury for trial.

On April 9, 2018, the United States Court of Appeals for the Ninth Circuit, sitting *en banc* (i.e. with all judges participating – an occurrence only reserved for important cases), held in *Rizo v. Yovino* that an employer cannot justify different pay between men and women based upon prior pay histories. The plaintiff in *Rizo* was hired by the Fresno County Office of Education. Her employer set her starting salary based upon a formula that took into account her prior salary history. After conversing with her colleagues, Rizo realized that she was

Hawaii, Idaho, Montana, Nevada, Oregon and Washington.

Shortly after *Rizo* was decided, a federal court in Pennsylvania weighed in on whether a municipality could bar employers from asking about and using prior pay histories. In late 2016, the City of Philadelphia passed an ordinance that barred employers from, among other things, relying upon prior pay history to determine a salary for the new employee. The Chamber of Commerce for Greater Philadelphia filed a lawsuit alleging that the ordinance was unconstitutional under the First Amendment. On April 30, 2018, the court issued its ruling, and the effect of the ruling is

EVEN IN AREAS WHERE THERE IS NO BAN ON INQUIRING INTO PRIOR PAY HISTORY, USE OF SUCH INFORMATION MAY LEAVE AN EMPLOYER VULNERABLE IN POTENTIAL LITIGATION UNDER TITLE VII OR THE FEDERAL EQUAL PAY ACT.

paid less than the men in her office. She filed a lawsuit under the federal Equal Pay Act. The court held that "prior salary" simply "is not a legitimate measure of work experience, ability, performance, or any job-related quality." According to the court, to hold otherwise would "allow employers to capitalize on the persistence of the wage gap and perpetuate that gap *ad infinitum* – [which] would be contrary to the text and history of the Equal Pay Act, and would vitiate the very purpose for which the Act stands."

The *Rizo* decision is the strongest holding from any appellate court on the use of prior salary history under the Equal Pay Act, and bars the use of prior salary history, whether alone or in combination with any other criteria, in determining pay thresholds. The court's ruling directly applies to states under the umbrella of the Ninth Circuit: Alaska, Arizona, California,

that employers doing business in Philadelphia are prohibited from using prior pay history to determine starting salaries. The court's ruling is being appealed.

Current or Pending Laws

States and municipalities across the country are also taking a stance on the use of prior pay history. States that have implemented laws banning employers from asking about or using an applicant's prior pay history to set new wage levels include California (whose law took effect in January 2018); Delaware; Puerto Rico; and New York City. Similar laws will go into effect in the near future, such as Massachusetts (July 2018), Vermont (July 2018), Connecticut (January 2019) and Oregon (January 2019).

The Illinois General Assembly is attempting to pass similar legislation. House Bill 4163 has been passed by the Senate but is now subject to a motion to reconsider

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the vote. Last year, Illinois Governor Bruce Rauner denied a similar bill, and the state Senate was unable to come up with enough votes to override the gubernatorial veto.

According to Illinois House Representative Michael J. Zalewski, an attorney at Taft Stettinius & Hollister and House Co-Sponsor of the Bill, "House Bill 4163 helps cure a perpetual cycle of inequality in the workplace. The legislation prevents an employer from asking job applicants about their previous salary history while still permitting employers to negotiate a salary level that they believe a job requires."

House Bill 4163 in its current form prohibits employers from screening applicants based on their wage or salary history. The bill also bars employers from seeking wage, salary or benefits histories of any applicant or current or former employee. The law contains exceptions for salary information that is made public in accordance with applicable law. Additionally, employers are not prohibited from seeking the pay history information of current employees who are applying for a new position within the organization. Under the proposed law, employees who prove a violation of this provision can recover not only the wage differential but also compensatory damages, punitive damages, injunctive relief and attorney's fees. It remains to be seen whether Governor Rauner will veto this latest effort to curtail the use of prior salary histories.

Takeaway for Employers

Employers should be wary of requesting prior salary levels when setting incoming pay, given the emerging developments under federal law and the patchwork of state and local laws across the country. Even in areas where there is no ban on inquiring into prior pay history, use of such information may leave an employer vulnerable in potential litigation under Title VII or the federal Equal Pay Act. The safest course is to avoid asking applicants about prior pay histories and eliminate any internal formulas that take these histories into account when setting starting pay. To remain competitive without running afoul of the law, employers should focus on factors unrelated to gender, such as years and quality of experience, job-related knowledge and possession of a particular skill or ability that differentiates the candidate. ♦

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THE KNAPHEIDE MANUFACTURING COMPANY CELEBRATES 170TH ANNIVERSARY

There is a fine balance between sticking to your core values and changing with the times when it comes to keeping a family business alive for 170 years. At The Knapheide Manufacturing Company in Quincy, Illinois, the journey to becoming the leading manufacturer of work-ready service vehicle solutions in North America was not a straight path. The company has had to evolve with the times while staying true to the principle of never settling for anything less than the best. Today, there are more work trucks in America with name “Knapheide” than any other brand.

“We’ve gone through several stages,” said Harold W. (Knap) Knapheide III. Knap is President of The Knapheide Manufacturing Company and the great-great-grandson of Herman Heinrich Knapheide, who founded Knapheide Wagon Company in 1848.

Herman had sailed from Germany to New Orleans in 1845, making his way up the Mississippi River until he settled in Quincy, Illinois. He began manufacturing wheels for horse-drawn wagons and selling them locally.

“There were a number of wagon companies in Quincy back when we started. We were a very small company — smaller than several of the other wagon companies in town,” Knap said.

The difference between Knapheide Wagon Company and the others was not just the quality of the craftsmanship, but the ingenuity of the following generations. In 1892 Henry E. Knapheide expanded his father’s operation to a three-story factory, and in 1910, he took the family business even further by installing the first wagon body on a Ford Model T chassis, marking the beginning of the age of automobiles.

When the Stock Market Crash overturned the economy and brought on the Great Depression, the company’s sales fell to just

\$14,083.65 in 1932. Third-generation Harold W. Knapheide met the challenge head-on, selling washing machines and repairing trucks and wagons to keep the business afloat. In 1937, he renamed the family company to The Knapheide Manufacturing Company.

After making it out of the slump of the Great Depression, more challenges were on the horizon. A plant fire in 1945 prompted Harold W. (Bud) Knapheide II to again rethink the family business and implement the production of all-steel truck bodies that were aimed at the agriculture market. Just three years after Bud’s son Knap joined the business in 1967, The Knapheide Manufacturing Company earned the title of the largest manufacturer of grain bodies in the nation. But the prosperity did not come without hardship.

In 1973, the Mississippi River rose 20 feet above normal levels, swallowing the entire Knapheide manufacturing space. Though it was three months before production could resume in the facility, Knapheide rented several small buildings and kept employees working and orders filled.

Knap became president of the company in 1978 and was immediately tasked with reframing the business strategy. Sales had dramatically dropped, and the company’s client base of small family farms had practically disappeared. Knap stayed true to the company’s core value of never settling, identifying a new customer base and expanding into the service body market. Within 10 years, The Knapheide Manufacturing Company had become the number-one manufacturer of service bodies in the United States.

“I think it was a natural evolution,” Knap said. “We just wanted to keep getting better and adapt to the changes in technology, the economy, and the way people do things. When they change the way they do their jobs, we have to change the way we build the equipment for them.”



A worker welds on a platform in the 1950s.



Sixth generation Bo (left) and fifth generation Knap (right) visited The Work Truck Show hosted in Indianapolis, IN in March of this year.



Today's facility accomplishes more than Herman Knapheide could have ever imagined.

It is this willingness to adapt that has kept The Knapheide Manufacturing Company so strong, even during times of struggle.

Twenty years after the first flood, the Mississippi river again rose to record-high levels, and almost 70 percent of the facility was submerged by 20 feet of water. Knap ordered the construction of a new 480,000 square-foot facility on higher ground, and miraculously was able to grow the company by 40 percent during that time. In 1997, The Knapheide Manufacturing Company settled into its new home.

In 2000, Harold W. (Bo) Knapheide joined the business with his father and helped to lead it into the 21st century. Bo has been active in several aspects of the business over the last 18 years, working in production, shipping, sales, and marketing. He now serves as the Senior Vice President of Distributor and Fleet Operations.

"It is a family business, but it's also our culture," Bo said. "As we continue to get bigger, it's important that we stay true to the culture that keeps us strong."

And the company has indeed gotten bigger. What had been a business with around 100 employees at the time Knap took over, The Knapheide Manufacturing Company now has over 1,200 employees and 240 distributors.

Coming into the family business was not an obligation for the Knapheide family, but a choice.

"I really grew up in it, and it's all I've ever done," Knap said. "I didn't feel that I had to go into the business — I wanted to."

Both Knap and Bo are ready to meet the challenges of the future head on. Employing their "Never Settle" attitude with their "Three C" plan for the business — customer first, collaboration, and continuous improvement — the company has become more than just a manufacturer of service truck bodies, and now also specializes

in distribution, installation, and system integration. 170 years after its founding, Herman Heinrich Knapheid's wagon company has become so much more.

"We continue to evolve in this business," Bo said. "We're working hard to stay ahead and to make the way we work more efficient — the more efficient we are, the better we will be able to provide the best solutions for our customers, which, in turn, makes our customers more efficient."

While the business has remained with the Knapheide family for six generations, it would not have stayed so strong without the dedicated long-time employees who work there.

"We have a lot of 20, 30, even 40-year employees," Knap said. "We've had employees who stuck with us through everything — people who came out to move sand bags during both of our floods. When you've got a dedicated team, it makes the business that much stronger."

The Knapheide Manufacturing Company also works with John Wood Community College in Quincy to offer training and certificates for employees, giving them the education needed to advance into leadership roles.

"We want to have a business that is good and stable and offers a long-term career for people," Knap said.

With the rate at which The Knapheide Manufacturing Company is expanding and adapting, there are sure to be countless opportunities for growth.

Please join the IMA in congratulating The Knapheide Manufacturing Company on 170 years of manufacturing in Illinois! ♦

WHY YOUNG PEOPLE DON'T WANT OUR JOBS AND WHAT WE CAN DO ABOUT IT

INDUSTRIAL TRADES PROS

While dropping my kids at school this last month, I took the opportunity to ask two ordinary American teenagers what they thought of “blue-collar work.” One offered, “I think of boring, repetitive work and a career that is never going anywhere.” The other replied, “I’ve never even considered blue-collar work. I actually don’t know why. Sorry.”

Let’s do our best not to have our collective feelings hurt by these and similar responses, but clearly U.S. manufacturers, as we look towards the future, must ask the hard question: Why do these young people not want our available jobs and is there anything we can do about it?

Of course, the common refrain from managers is, “they’re lazy!” For generations, America’s elders have made similar claims about our youth only to find history and data showing our younger generations adopting nearly the same behaviors, habits,

In the 1960s and 1970s, something changed. The United States’ efforts to lower global trade barriers began to bear fruit. With a new alternative to domestic markets, an era of intense manufacturing competition began with U.S. corporations competing not just against one another but against international competitors as well. The rise of Asian manufacturing in Japan, Korea and then China put pressure on U.S. manufacturers to deliver products more efficiently, driving major labor productivity gains and reducing the number of workers required. Supply chains expanded across international borders, and low-skilled jobs were effectively transported overseas where labor costs were low.

The United States had achieved something remarkable, vastly reducing the cost of certain goods and enabling our current consumer economy, but the impacts were significant. According to the Bureau of La-

had little positive to say about manufacturing work, it was the collective American psyche that had changed its view about the opportunities that exist for manufacturing workers. The blue-collar stigma was born.

As parents coached their children’s careers, manufacturing jobs were conspicuously absent from those conversations. Americans began to view blue-collar work as unstable, full of heartbreak, and beneath their dignity. As a result, parents funneled their children into colleges on a historical scale – even if their children might ultimately be a better fit for blue-collar work.

Today’s Crisis

Today we find ourselves in peril. Manufacturing employment has continued to rise in the United States since 2010 as our high-tech production capabilities have made us competitive with low-cost production overseas. But we face a demographic crisis with the median age of employees

SOME HIRES WILL NOT WORK OUT, BUT WORKERS ARE SO VALUABLE AND IN SUCH DEMAND THAT IT IS WORTH IT – ESPECIALLY GIVEN THE STIGMA THESE WORKERS MUST FIGHT AGAINST. ALL WORKERS WANT TO FIND A HOME WITH THEIR EMPLOYER IF THE COMPANY AND WORKPLACE IS GOOD ENOUGH.

and perspectives as their elders once they become workers, married people, and parents.

Therefore, assuming our nation’s youth are capable of informed decisions, let’s reframe the question: Why is it young people see such limited opportunity in manufacturing? To answer this question, we must understand what has happened over the past eighty years to change the way our society views manufacturing jobs – only then can we reverse it.

A Brief History

Post-WWII was a boom time for U.S. manufacturing. Employment in manufacturing as a percentage of the overall economy was approximately 30 percent. Unions were strong and manufacturing workers took pride in their middle-class incomes. Families, friends, and neighbors worked in factories and acted as powerful role models for the next generation.

bor Statistics, the percentage of total employment in manufacturing fell from 26.4 percent in 1970 to 10 percent in 2012. The number of people employed in manufacturing fell from its peak of 19.5 million in 1979 to 12.6 million by 2018. Manufacturing jobs clearly continued to exist, but they were fewer; they were typically more specialized, and their visibility within the U.S. workforce was more limited.

Throughout this extraordinary period, U.S. employers made very reasonable decisions driven by economics and competition, but the effects were devastating to a large group of American workers on a very human and emotional level. Proud manufacturing workers felt powerless as they witnessed layoffs, the weakening of the unions meant to protect them, and the rise of corporate earnings and executive salaries. As the dust settled, it wasn’t just the workers forced to transition elsewhere that

in manufacturing reaching 44.5 as of 2017. With Baby Boomers increasingly moving towards retirement, there is a large void for young people to fill. The challenge is intensified due to the specialized skills needed to use, build, install, and service the advanced technology being implemented in manufacturing, transportation, distribution, aerospace, energy and other industries.

There’s never been a better time to pursue industrial trades positions. Young people are nearly guaranteed long-term demand for their skills. But the blue-collar stigma continues to impede interest in manufacturing jobs across America. The situation is made worse by some of our fellow manufacturers, whose mindset is stuck in a time when labor was abundant: treating employees like cogs in a machine, obsessed with temp labor services, laying off workers any time investors flinch, cutting corners on benefits and offering workplaces that you



and I wouldn't want to spend our day in. For decades, terms such as "human capital" have dehumanized employees in the eyes of their employers – shifting them into forms of economic input to be exchanged at any moment by investments in machinery and equipment. The thought process is not wrong, but the result is a hardening of the same cold thinking that keeps young people from considering "blue-collar work" today.

The Road Ahead

If we wait for a miracle, demographic pressures will only increase and labor constraints will become more severe. Asking others to solve the problem has its limitations. State governments, trade schools, high schools, and manufacturing associations are making important impacts but they cannot directly heal the damaged relationship between manufacturing workers and employers themselves.

It's up to us. Manufacturing employers must take steps to eliminate the blue-collar stigma from our own minds and the people we influence. We must respect our tradespeople and shift from thinking of them as cogs to thinking of them as essential team members. We must honor our workers' unique personalities and "brain diversity"

that make them naturals for our positions and not for a desk job. We must shift from non-commitment to our workers in the form of contract employment and temp-hiring to total commitment in the form of long-term positions that include training and ongoing investments in career development.

We must get over our paranoia about "job hopping" employees, which is keeping us from committing to our people. Some hires will not work out, but workers are so valuable and in such demand that it is worth it – especially given the stigma these workers must fight against. All workers want to find a home with their employer if the company and workplace is good enough. We must be good enough, and optimize our positions and workplaces to attract talent. We don't have to be Google or Facebook, offering gourmet breakfast parfaits or massages on the factory floor, but we should do what is necessary to attract talent in a way that is appropriate to our industry. As an example, manufacturers are focusing on their most productive employees and surveying their unique needs. As a result, they are introducing flexible hours, financial education classes, and additional training programs.

We should do these things for two reasons. First, it is the first step towards repair-

ing the reputation of manufacturing in the minds of young people. If enough of us can begin this journey, the word will spread that we offer stable careers worthy of them and we can establish a sustainable long-term relationship with our workforce. Second, our fellow competition is likely not making these efforts, and, therefore, it will give us an opportunity to win in this zero-sum employment environment, where either we get them or they do. If we can cater to our most productive employees, understand their characteristics and promote our businesses to more of these young people through word-of-mouth, social media and advertising, it will give us a strong competitive advantage for years to come. The bar is still low, so let's take advantage of it.

Young people's lack of interest in our jobs has been a long-time in the making. To correct it, we must understand its origins, but also take the steps necessary to fix what has become broken. If we can lead these changes within our own organizations, it will undoubtedly inspire young people, parents and mentors to change their opinions and hopefully have something very positive to say about the future of manufacturing jobs. ♦

A CURIOUS PROPOSAL

JIM NELSON



President Donald Trump is proposing to merge two federal agencies into one super-sized agency. Under the President's proposal, the Departments of Education and Labor would be combined into a single, yet unnamed Department.

The proposal is part of an overall agency reform plan that was submitted to the Office of Management and Budget nearly a year ago. The original suggestion was for the Department of Education to take over the Labor Department's responsibilities for job training programs.

The current proposal expands on that to include all functions of the Labor Department, which would presumably include OSHA, the Division of Wage and Hour, Workers Compensation, Unemployment Insurance, [the] Pension Guarantee Board and [the] Bureau of Labor Statistics, among others.

According to OMB, the targeted outcome of the merger would be to better align preparation of the workforce by driving comprehensive approaches to educating young people, and additionally having more immediate intervention strategies for Opportunity Youth (those 16-24 years of age who are unemployed and unenrolled in school) and dislocated adults in need of retraining.

IN ABSORBING THE LABOR DEPARTMENT AND ITS 17,500 EMPLOYEES, MANY WONDER IF THERE WOULD BE ANY EFFICIENCIES GAINED THAT WOULD RESULT IN PRODUCING A HIGHER QUALITY WORKFORCE DRIVEN BY FEDERAL CURRICULUM AND WORK POLICIES.

According to OMB, there is a significant disconnect between current workforce strategies and STEM education. Other proponents of the move say a merger could lead to expanded uses of education support funds, like Pell Grants, Perkins Act dollars, that encourage more people to pursue and complete education pathways.

Of course, the "Devil is in the details" and there aren't many in this initial announcement. For instance, while the Department of Education is, by headcount, one of the smallest federal cabinet agencies (just over 4,000 employees), its work has been roundly criticized and its influence over state and local schools demonized ever since it was elevated to cabinet status by President Jimmy Carter in 1979. In absorbing the Labor Department and its 17,500 employees, many wonder if there would be any efficiencies gained that would result in producing a higher quality workforce driven by federal curriculum and work policies. Moreover, it's unclear whether if the President made the proposal to bolster education policy or to drive education into the arms of workforce development. For the moment, there is no clear consensus by either state or federal policymakers on the benefits such a merger would produce, and the recently enacted federal budget for the fiscal year that begins on October 1, 2018 failed to include funding for the new agency.

But there are some things that manufacturers do know.

First, the quality of applicants applying for careers in manufacturing is declining. The work ethic of younger workers is severely lacking, and many desirable candidates are unable to pass a drug screen, even when they are forewarned.

Second, a new skills gap has emerged as a result of technological advancements, and very few secondary or post-secondary schools are responding to the academic requirements of an ever widening digital world.

Third, current state and local policies fail to focus on dramatically improving outcomes for students and preparing them for 21st Century careers.

The current political environment in Washington, DC is going to assure this curious merger proposal will be subject to a contentious partisan debate, and one that many believe will never get focused on improving opportunities for students. Nevertheless, merging these two major federal departments is something we'll be watching with great interest. ♦

MAJOR CHANGE IN AIR PERMITTING POLICY: REDUCE YOUR COMPLIANCE BURDENS

HUSCH BLACKWELL LLP

The recent withdrawal by the U.S. Environmental Protection Agency (EPA) of its “once in, always in” policy will allow Illinois manufacturers that have historically been regulated as “major sources” of hazardous air pollutants to be reclassified as “area” sources if they have reduced their potential to emit to below major source thresholds. As a result, Illinois manufacturers could see significant cost savings.

Earlier this year, EPA reversed its long-standing “once in, always in” policy governing what sources are subject to major source regulations for the emissions of air toxics under Section 112 of the Clean Air Act. Under a 1995 policy memorandum issued by the agency, a source that became subject to a Section 112 standard because it had the potential to emit hazardous air pollutants above the major source thresholds were “always in,” that is, the source had to forever comply with that standard—even if the source subsequently installed emission control equipment or switched to non-hazardous air pollutant substances, and took enforceable actions to keep emissions below those limits. However, on January 25, 2018, EPA issued a memorandum that reversed this policy. It authorizes the reclassification of a “major source” to an “area source” at such time as the source implements enforceable limits that reduce its potential to emit to below the major source thresholds.

Under Section 112 of the Clean Air Act, a “major source” of hazardous air pollutants is defined as “any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the potential to emit, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.” Illinois manufacturers who are currently regulated as “major sources” and are subject to a Section 112 standard but do not have the potential to emit 10 tons per year of any one hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants should seek reclassification from “major” to “area” source status, in order to take advantage of streamlined

recordkeeping and reporting requirements under their air permits.

There are several ways that Illinois manufacturers can limit their potential to emit to below major source thresholds. Facilities can implement operational limits, such as restrictions on hours of operation or restrictions on production that are less than design capacity. Facilities may also place physical limits on their potential to emit through the use of control equipment. Where these limits are enforceable (i.e., required by the terms of a construction or operating permit), facilities may be eligible to qualify as an “area” source. This is true regardless of whether facilities have already implemented these limits or are willing to implement them going forward.

States like Illinois have incorporated the federal major source requirements into their air permits. As a result, these requirements remain in effect until the permit is

modified. In light of EPA’s new policy, Illinois manufacturers should review their air permits and work with the Illinois EPA to remove the unnecessary and burdensome requirements.

Going forward, even Illinois manufacturers who do not benefit from the withdrawal of the “once in, always in” policy may have opportunities to reduce their regulatory burdens. EPA is beginning to reassess the way it issues Clean Air Act pollution permits for new and modified facilities. As part of this initiative, EPA created a task force to reconsider the permitting process for new sources of air pollution under the Clean Air Act, called New Source Review. In announcing that program, EPA recognized that the potential costs, complexity, and delays that often arise during permitting can slow the construction of new facilities or modification of existing ones and can hinder environmental improvements. ♦



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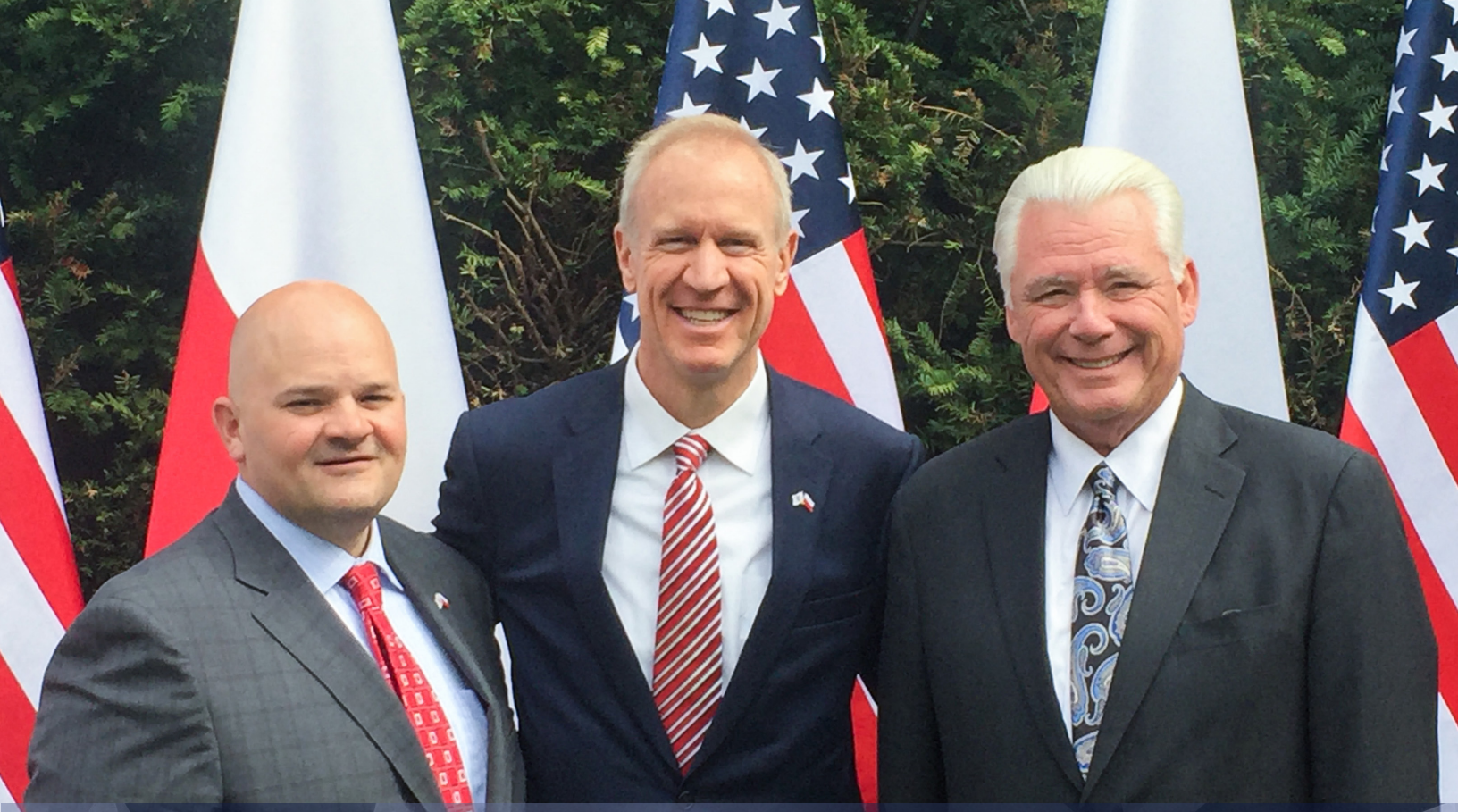
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GOVERNOR RAUNER AND THE IMA EMBARK ON ILLINOIS TRADE MISSION TO POLAND AND GERMANY

This April, the IMA's Greg Baise and Mark Denzler accompanied Governor Bruce Rauner on his first European trade mission to Poland and Germany. Led by Intersect Illinois and Illinois Department of Commerce, the 10-day mission consisted of travelling over 1,700 miles through Poland and Germany to meet with dozens of companies and over 250 people to discuss education and workforce development as well as foreign direct investment into Illinois.

"Our mission to Europe was focused on bringing new jobs and new investments to Illinois through expansion of existing companies already here in the state as well as recruitment of new companies considering their first investment in Illinois," said President and CEO of Intersect Illinois Mark Peterson.

"We met with business and education leaders in two of Europe's most compelling economies," Governor Rauner said. "Germany is a mainstay in world commerce and is a \$3.4 billion customer for Illinois businesses. Poland is a rising economic star that has parlayed fiscal discipline into more than 25 consecutive years of economic growth. We look forward to seeing where these friendships lead."

Illinois' ties to Germany and Poland run deep — over \$800 million of investment in Illinois was recently announced by the companies visited on the trip. Outside of Warsaw, Chicago is home to the highest population of Polish speakers in the world, making Illinois an easy choice for doing business. The convenience of Illinois airports and the crossover of work hours between the two time zones make working together that much simpler.

"The international market poses great potential for the State of Illinois," said Illinois Department of Commerce Director Sean Mc-

Carthy. "There is nothing better than showing our commitment to our global partners by making the journey to connect face-to-face. It demonstrates our dedication to our mutual success."

The Illinois team, which also included IMA members Dr. Ken Ender from William Rainey Harper Community College and Kevin Considine from Lake County Partners, was able to personally meet with Polish President Andrzej Duda to discuss economic development and the potential of installing Poland's first United States trade

**ILLINOIS EXPORTS ABOUT \$64 BILLION
OF PRODUCT A YEAR, AND
MANUFACTURING GOODS ARE
THE MAJOR COMPONENT
OF OUR EXPORT MARKET.**

office in Chicago. They also visited several historic sites such as the Auschwitz-Birkenau Extermination Camp and the Warsaw Ghetto, and celebrated the 25th anniversary of the partnership between the Illinois National Guard and Polish Armed Forces to mark the strong partnership already present between Poland and Illinois.

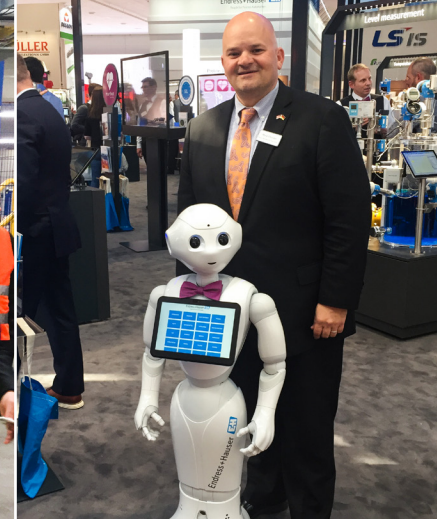
"This is a global economy, and the export market is very important for Illinois," Greg Baise said. "Illinois exports about \$64 billion of product a year, and manufacturing goods are the major component of our export marketplace. Looking at the United States, the Euro-



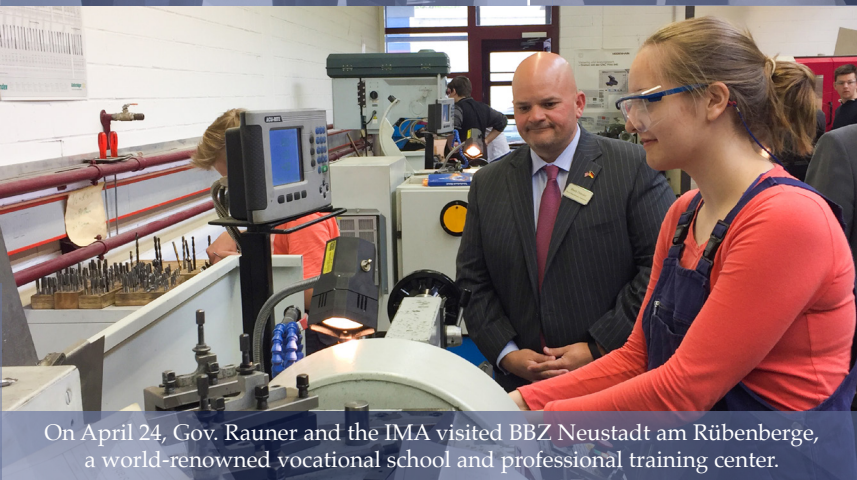
Udo J. Vetter (Chairman of Vetter Advisory Board) and Gov. Bruce Rauner discussed manufacturing and trade prospects in Illinois.



One of the many manufacturers visited on the trade mission was Haribo, a confectionery company with headquarters in Rosemont, Illinois.



Each year, the HANNOVER MESSE trade show attracts around 6,500 exhibitors and 250,000 visitors.



On April 24, Gov. Rauner and the IMA visited BBZ Neustadt am Rübenberge, a world-renowned vocational school and professional training center.



Vetter Pharmaceuticals will be expand their 37,000 square foot facility in Skokie, Illinois, adding 12,000 square feet of storage and office space.

pean marketplace should have Chicago and the Midwest in front of their sight."

While the time spent in Poland was packed with cultural and educational excursions, the seven days spent in Germany were a whirlwind of visiting companies that have presence in the Republic of Germany as well as German companies that are looking to expand operations in the United States. Among the companies visited were Vetter Pharma, which has a laboratory in Skokie; Fresenius Kabi, which houses its North American headquarters in Lake Zurich; Haribo, which recently expanded its headquarters to Rosemont; Thyssenkrupp, which has a facility in Danville; Archer Daniels Midland, which houses its headquarters in Chicago; and Continental Tire, which has a facility in Mt. Vernon.

"Germany is an extremely important investor in Illinois," Rauner said. "It is Illinois' third largest foreign direct investor by employment. Machinery and equipment, computer and electronic products, chemicals and fabricated metals represent billions of dollars in business and thousands of jobs for Illinoisans."

The team also visited Rhine-Westphalian Technical University as well as BBZ Neustadt am Rübenberge to meet with leaders, apprentices, and students of manufacturing and engineering.

"Manufacturing is prestigious and apprenticeships are a way of life in Germany where they grow and develop their own pipeline of workers. One company had more than 800 applicants for only a few dozen apprenticeships that ultimately lead to a full-time job. Finding qualified workers is a major challenge for Illinois employers and exploring their education system was extremely insightful," said Mark Denzler, Vice President & COO of the IMA.

Learning about Germany's established apprenticeship programs

and the strength of the education in manufacturing and engineering will prove invaluable for the IMA's educational efforts here in Illinois. The IMA Education Foundation is helping lead the ICATT Apprenticeship Program in conjunction with the German-American Chamber of Commerce.

The end of the European trade mission was marked by the German HANNOVER MESSE trade show, the world's leading showcase for digitization of production and energy. At the event, Governor Bruce Rauner announced that for the first time the HANNOVER MESSE trade show brand will be coming to Chicago to join the International Manufacturing Technology Show (IMTS) this fall. The group also attended a private opening ceremony featuring German Chancellor Angela Merkel and Mexico President Enrique Peña Nieto.

"Having HANNOVER join forces with IMTS for this biennial event makes Chicago the go-to destination for manufacturers worldwide," Rauner said. "We can count on the collaboration to enhance our reputation as a center for industrial technology. We will also benefit greatly from the economic impact of an enlarged convention visitor and exhibitor base for these shows."

The trade show, which will occupy about 130,000 square feet of display space on two levels in the East Building of McCormick Place, is expected to attract around 550 exhibitors and more than 100,000 visitors from September 10-15.

"Any time we get to highlight the assets Illinois has to offer is great for our state," Sean McCarthy said. "We are thrilled to say that we arrived back to the states with many leads and stronger relationships with our European partners." ♦

CLEAN CONSTRUCTION OR DEMOLITION DEBRIS AND UNCONTAMINATED SOIL FILL: WHAT YOU NEED TO KNOW

HEPLERBROOM



Clean construction or demolition debris (“CCDD”) and uncontaminated soil fill (“USF”) operations beneficially conserve landfill space in Illinois and provide less expensive options for managing CCDD and USF by allowing former quarries and mines to be repurposed. On July 30, 2010, Governor Quinn signed Public Act 96-1416, which imposed interim standards for permitting and regulation of CCDD and USF operations. One of the aims of the legislation was to ensure that CCDD operations were conducted under the oversight of the Illinois Environmental Protection Agency (“Agency”).

The legislation required the Illinois Pollution Control Board (“Board”) to adopt regulations implementing the interim standards, and the Agency filed its rulemaking proposal for amendments to the existing CCDD regulations on July 29, 2011.¹ Subpart G of the Agency’s rulemaking proposal required CCDD and USF sites to monitor groundwater annually during the life of the facility. During the Board’s scheduled hearings on the Agency’s rulemaking proposal, there was significant public participation,

including written comments and pre-filed testimony.

On February 2, 2012, the Board issued its First Notice Proposed Rule, which made a number of changes to the Agency’s proposal.² One of the Board’s changes was to remove Subpart G and the requirement for groundwater monitoring at CCDD and USF operations. The Board found that no evidence had been presented to demonstrate that CCDD or USF sites were a source of groundwater contamination. The Board also expressed concern with the Agency’s conclusion that the fiscal impacts of the groundwater monitoring requirement would not be detrimental, and acknowledged other public comments indicating that “the proposed groundwater monitoring would force many fill operations to shut down due to the high cost of installing and sampling monitoring wells.” Based on the evidence, the Board concluded that groundwater monitoring was not economically reasonable or necessary. Instead, the Board strengthened the front-end screening, soil testing and certification requirements, and also required compliance with maximum allowable concentrations.

Following additional hearings and public comments, the Board issued its Second Notice Proposed Rule on June 7, 2012. In its Second Notice Order, the Board noted that it remained unconvinced that groundwater monitoring should be required for CCDD and USF operations. However, on August 14, 2012, the Joint Committee on Administrative Rules (“JCAR”) recommended further consideration of the groundwater monitoring requirement for CCDD and USF sites. On September 12, 2012, the Board accepted JCAR’s recommendation and opened Subdocket B to continue evaluating the proposed requirement for groundwater monitoring at CCDD and USF sites.³ More hearings were scheduled, and a significant number of organizations and individuals filed comments and presented testimony. After reviewing the entire record and considering the additional comments and testimony, the Board again determined that groundwater monitoring for CCDD and USF sites was unnecessary and closed Subdocket B.⁴

The Illinois Attorney General and Will County appealed the Board’s decision to close Subdocket B to the Third District Appellate Court.⁵ The Third District Appellate Court considered the findings of a licensed engineer and hydrogeologist hired by Will County, who determined that groundwater monitoring costs would total, on average, \$54,048 over a CCDD site’s three-year lifespan and \$1,036,389 over a 33-year lifespan. Will County’s expert also estimated that the initial installation of four monitoring wells would cost \$156,399. The Court noted that, although the Agency and Attorney General had characterized the Subpart G costs as “insignificant,” the Agency’s own estimations would amount to a tipping fee increase of up to 11.5 percent for 10 years. On September 12, 2017, the Court upheld the Board’s decisions to remove Subpart G from the Agency’s rulemaking proposal and close Subdocket B, finding that the Board did not fail to consider any important aspect of protecting groundwater from CCDD and USF operations, and that the

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record sufficiently supported the Board's determination.

On January 11, 2018, Will County filed a petition for leave to appeal with the Illinois Supreme Court.⁶ In its petition, Will County contends that the Board has applied "circular logic" to the issue of groundwater contamination at CCDD sites, i.e., groundwater contamination cannot be proven in the absence of a groundwater monitoring requirement.⁷ On March 21, 2018, the Illinois Supreme Court accepted the appeal.⁸

Media sources have also reported on the conflict. The Chicago Tribune released an article in November 2017 titled, "4 in 5 Illinois debris sites high in toxins" to cover the ongoing discussion surrounding groundwater regulation for CCDD fill sites.⁹ According to the Tribune article, testing conducted by IEPA at 92 quarries and excavation sites accepting CCDD is reported to have resulted in 74 sites with violations. However, the article also noted that site owners and industry representatives contend the Agency tests are too basic and reveal background concentrations of naturally occurring metals. Moreover, according to the Illinois Association of Aggregate Producers ("IAAP"), the costs associated with dumping CCDD in landfills are at least five times more than placing the same material in CCDD fill sites. IAAP released an article in response to the Tribune article which noted that the unnecessary groundwater monitoring may drive many CCDD facilities out of business.¹⁰

The Agency and the Attorney General's Office have commenced a number of enforcement actions against CCDD facilities in response to the perceived lack of regulation and compliance at these sites. During the Subdocket B hearings, the Attorney General's Office informed the Board that thirteen enforcement actions against CCDD facilities were brought between August 12, 2012 and June 12, 2013.¹¹ The Attorney General also recently announced two law-

suits against the owners of two CCDD facilities in La Salle County alleging acceptance of disallowed waste.¹²

The Agency's recent increased scrutiny on CCDD and USF sites has likely been influenced by the opposition of the Illinois Attorney General, environmental groups, and local government to the Board's decision to not require groundwater monitoring at CCDD and USF sites. If the Illinois Supreme Court decides against the Board's

ruling, that decision would have far-reaching impacts, not only for CCDD and USF sites in Illinois, but also for Illinois manufacturers who directly or indirectly use these sites for managing CCDD and USF. If this includes your business, we recommend keeping a close eye on how the Illinois Supreme Court case unfolds and reaching out for additional assistance if you have any questions or concerns. ♦

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1. *In the Matter of: Clean Construction or Demolition Debris Fill Operations (CCDD), Proposed Amendments to 35 Ill. Adm. Code 1100 ("CCDD Rulemaking")*, PCB No. R12-9 (Statement of Reasons, July 29, 2011).

2. *CCDD Rulemaking*, PCB R12-9 (Proposed Rule, Feb. 2, 2012).

3. *CCDD Rulemaking*, PCB No. R12-9 (Board Opinion and Order, Aug. 23, 2012).

4. *CCDD Rulemaking*, PCB No. R12-9(B) (Board Opinion and Order, Aug. 6, 2015).

5. *County of Will, et al. v. Illinois Pollution Control Board*, 2017 IL App (3d) 150637-U.

6. *County of Will, et al. v. Illinois Pollution Control Board*, No. 122813.

7. *Petition for Leave to Appeal*, at 15-16.

8. *County of Will, et al. v. Illinois Pollution Control Board*, 95 N.E.3d 485 (Ill. 2018).

9. See, e.g., John O'Connor, *AP Exclusive: 4 in 5 Illinois debris sites high in toxins*, CHICAGO TRIBUNE (Nov. 19, 2017, 9:00 AM), available at <http://www.chicagotribune.com/news/sns-bc-il--demolition-debris-toxins-20171119-story.html> (last visited June 6, 2018).

10. Kerry Clines, *IAAP Responds to Illinois EPA on CCDD Contamination in Quarries*, AGGREGATES MANAGER (Dec. 13, 2017), available at <https://www.aggman.com/iaap-responds-to-illinois-epa-on-ccdd-contamination-in-quarries/> (last visited June 6, 2018).

11. *CCDD Rulemaking*, PCB No. R12-9(B), at 61-62 (Opinion and Order, Aug. 6, 2015).

12. See *Attorney General Joins in on Taking Stand Against Dumping Violations*, NEWSTRIUNE (May 7, 2018), available at http://www.newstrib.com/free/attorney-general-joins-in-on-taking-stand-against-dumping-violations/article_d6c641c6-51fb-11e8-b25e-fb0ea2dd4ef6.html (last visited June 6, 2018).

NEW DEVELOPMENTS IN ENVIRONMENTAL, HEALTH AND SAFETY REGULATIONS

BBJ GROUP



This article provides a brief overview of several new and developing environmental, health and safety (EHS) regulations that could impact manufacturers operating in Illinois or elsewhere in the United States.

Hazardous Waste: Generator Improvements Rule

This summer, the Illinois Pollution Control Board is in the process of adopting certain changes made to the federal hazardous waste regulations in 2016, including a new set of requirements called the Generator Improvements Rule (GIR). The anticipated outcome is for the GIR to be adopted in whole by Illinois and enforced by the Illinois Environmental Protection Agency (IEPA). This process should be final in or near this October.

The good news is that the GIR is designed in large part to make hazardous-waste regulations easier to understand and more flexible. Among other things, those who generate “episodic waste” (waste generated in one month that “bumps up” the facility

to a higher waste generator category)¹ can now avoid designation as a higher-quantity generator, simplifying compliance for these companies. Another improvement in the GIR is to increase flexibility for the use of multiple “satellite” waste-collection areas operated by a single company, reducing recordkeeping and reporting requirements for those who consolidate small quantities of waste throughout their operations at one central facility.

The GIR also includes several revisions to reporting and labeling requirements (in some ways more stringent than earlier requirements) that your plant operations or EHS staff should become familiar with before the Illinois rule is finalized.²

IEPA Hazardous Waste Enforcement Priorities

The IEPA recently announced an updated Resource Conservation and Recovery Act (RCRA) enforcement priority: small quantity generators of hazardous waste (SQGs). Because these generators have previously been a low-enforcement priority,

IEPA intends on getting a better handle on how many SQGs there are in Illinois and what they are doing with respect to their hazardous waste. To help facilitate this data gathering, SQGs will be required to re-register with IEPA every four years.

In addition to the re-registration program, IEPA’s enforcement focus areas for SQGs will include ensuring containers are securely closed and labeled; appropriately marking the accumulation date when wastes are moved to the 90-day accumulation area; keeping training records up to date; and updating RCRA contingency plans (including distribution of these plans to local governments). Due to this shift in IEPA priorities, we recommend that SQGs evaluate their readiness for an inspection.

Chloride in Storm Water

Regulatory agencies are becoming more aware of—and likely to enforce against—industrial storm-water runoff generators that introduce chlorides into streams and lakes. Chloride means salt, including salt used to de-ice roads and parking areas. Of

immediate concern, especially to businesses operating in northeast Illinois where the chloride issue is prevalent, is the relatively recent adoption (2015) of new and more stringent chloride aquatic life standard for winter months (i.e., mostly related to road salt). Although this is a winter standard, variances need to be filed by July 26 to avoid the new standard when it kicks in later this year.

Possible Regulation of Point Source Discharges to Groundwater

Manufacturers should be aware of potential long-range changes in the regulation of industrial point-source pollutant discharges under the Clean Water Act (CWA). A combination of recent court cases and action by EPA make it clear that some changes to the National Pollutant Discharge Elimination System (NPDES) permit program could be headed your way, specifically relating to discharges to groundwater, which have not been clearly or consistently regulated under the NPDES program.³ The result could lead to another layer of regulation under the CWA for owners of underground storage tanks, pipes and injection wells.⁴

The federal Clean Water Act (CWA) regulates and requires permits for point-source discharges of pollutants to jurisdictional waters, also known as waters of the U.S. or “navigable waters.” This jurisdiction has long been interpreted as covering surface water bodies, but there has been divided opinion on whether groundwater (water contained in subsurface aquifers) could or should ever be regulated under the CWA. Groundwater can mix with surface water, allowing pollutants discharged into groundwater to affect surface waters.

Three recent federal court cases and a recently published request for comments from EPA may result in at least some pollutant discharges to groundwater falling under CWA jurisdiction. Briefly, the courts have found that in at least some situations, discharges to groundwater hydraulically connected to surface water can and should be regulated under a NPDES point-source

discharge permit.

For its part, EPA is seeking community input to clarify where it ought to stand on the issue. EPA has repeatedly and for many years stated that discharges to groundwater that is connected to surface water may be regulated under the CWA (an unusual and confusing position for a regulatory agency to take). To date, the agency has not issued a rule actually requiring CWA regulation of discharges to groundwater. Following (and perhaps because of) the recent court decisions on the matter, EPA may be about to resolve its own uncertainty, and the regulated community has stepped up to help. In response to its request for input, EPA collected hundreds of comments through its deadline in May of this year, and we will be watching to see what next steps they take in light of the diverse advice and advocacy contained in those public comments.

OSHA Regulation of Silica Exposure

The Occupational Safety and Health Administration (OSHA) is establishing new limits for exposure to silica dust in the workplace. These are relatively stringent requirements that will affect foundries and businesses engaged in abrasive blasting and stonecutting. These standards became enforceable on June 23, 2018. There are interim steps you can take if you have not yet fully complied.

Crystalline silica is a basic component of soil, sand, granite and many other minerals. Silica exposure is a serious concern for workers who may inhale silica-containing dust. Crystalline silica has been classified as a human lung carcinogen.

OSHA has stated as a matter of enforcement policy that, during the first 30 days of enforcement, OSHA will assist employers making a good-faith effort to comply with the new silica standards and will not issue a citation. To ensure worker safety and avoid late compliance, if silica exposure risk is present in your operations and you have not yet done so, you should immediately address the issue with your plant or EHS managers.

OSHA and Opioids in the Workplace

Over the past two years, fatal accident rates have increased dramatically in the United States. OSHA has cited opioid medications as one, if not the most significant, reason for this increase.⁵ Although we are aware of no specific new OSHA regulations regarding opioids that have been proposed affecting Illinois employers, existing approaches to drugs in the workplace are taking on a greater urgency in light of the heightened risks OSHA has linked to opioid abuse. In addition to direct opioid overdoses by workers, OSHA has connected opioids to increased transportation accidents and workplace violence. Good employer practice for manufacturers in Illinois and throughout the U.S. should address the rising incidence of opioid safety issues in consultation with EHS professionals and legal counsel; there are complicated privacy and discrimination concerns surrounding drug testing, whether random or targeted. Solutions your HR and risk-management team may approve could include employee assistance programs and, where necessary, employee testing specifically looking at prescription and illicit opioid drug use. Regardless of what steps the government may later impose, the evidence shows this is a current and growing problem for the individuals involved, their employers and their coworkers.

This brief article is by no means a comprehensive listing of all EHS regulatory changes that may affect manufacturers in Illinois, and, of course, there is no substitute for a full EHS regulatory compliance audit of your operations. But hopefully these new and ongoing developments will provide you some food for thought. You will want to consult with your plant managers, EHS staff or attorneys/HR/risk-management team to determine which might apply to your specific business practices and how best to ensure compliance where they do. ♦

1. For example, a cleanout or responding to an act of nature that generates hazardous waste.

2. Although IEPA will be responsible for enforcing the GIR in Illinois, USEPA has published a fact sheet for the federal GIR that may provide some general guidance until the regulations currently being adopted in Illinois are final: <https://www.epa.gov/hwgenerators/fact-sheet-about-hazardous-waste-generator-improvements-final-rule>.

3. Although Illinois has a regulatory regime for the monitoring and protection of groundwater under its Groundwater Protection Program and policies, the potential expansion of NPDES jurisdiction to expressly include groundwater could greatly affect the types of discharges and ways in which industrial point-source discharges are regulated in Illinois and throughout the U.S.

4. Tanks, etc. are already regulated under the RCRA and associated Illinois laws and regulations. The possible expansion of NPDES requirements to underground releases could result in additional permitting requirements for this regulated community.

5. For example, see this OSHA press release from December 2017: <https://content.govdelivery.com/accounts/USDOL/bulletins/1cd5a9e>

INDUSTRY 4.0 AND THE NEXT ERA OF MANUFACTURING

SIKICH LLP

During a recent visit to a shop floor, a group of Colorado high school students faced a compelling proposition: Higher education is expensive, “so, if you could earn up to 40 to 50 credit hours for college by working in a business like this, and get paid, and get your high school diploma, who wouldn’t want to do that?” asked Noel Ginsburg, chief executive officer of Intertech Plastics, which hosted the visit.

Industry 4.0. Advanced manufacturing. Smart manufacturing. Internet of Things. These terms describe the new technologies that will power the next era of manufacturing, helping companies increase operational efficiency, improve customer service and enhance field and plant maintenance.

And while every manufacturer has heard these buzzwords, according to new re-

distributors search for ways to fill the talent gap, robotics is an obvious and accessible solution.

The headwinds that faced the industry in the wake of the recession have eased, and the economic future of the industry is bright. However, success won’t come automatically. Manufacturing company leaders must adopt advanced technology throughout their plants and supply chains. Those that don’t will fall further behind more proactive and technologically enabled competitors. But those that do embrace this next era of technology in manufacturing will position themselves for a successful and prosperous future.

However, even as manufacturers implement new technology, there are several key, persistent challenges companies face that they can’t afford to ignore.

steps companies can take today to protect themselves.

First, a manufacturer must make cybersecurity a corporate priority and develop a clear and well-structured security program. Any good security program will include regular risk assessments, vulnerability scans and penetration testing. A penetration test involves a trained security professional breaking into a company’s system to identify vulnerabilities.

The program should also account for the security of products the manufacturer uses from third-party vendors, which can include the sensors in IoT applications. Before integrating these devices into their operations, companies need to vet the vendors and determine how they test for security vulnerabilities.

Finally, even the best preparation can’t

THE COMPANIES THAT ADOPT A STATUS QUO APPROACH WHEN IT COMES TO TECHNOLOGY, WORKFORCE AND LONG-TERM STRATEGIC PLANNING ISSUES WILL FALL BEHIND MORE QUICKLY TODAY THAN EVER BEFORE.

search, many fail to deploy these advanced technologies. Companies that resist a full embrace of new technology miss opportunities to boost operations and profitability in significant ways.

Sikich’s 2018 Manufacturing Report found that less than 10 percent of surveyed manufacturers currently use IoT technologies. Further, 30 percent said they have no clear understanding of the internet of things. And when asked if their manufactured goods have the potential to gather useful data, only 20 percent said yes and that they have active plans to include sensors.

Beyond the Internet of Things, the report identified additional technological deficiencies in the industry today. Nearly 40 percent of survey respondents said they don’t use robotics in their operations. This underuse of robotics is especially surprising at a time of unprecedented workforce pressures – manufacturers and distributors surveyed cited a “lack of qualified workers” as a top barrier to growth. As manufacturers and

Be Vigilant with Cybersecurity

Though our survey found an underuse of Internet of Things technologies, we do expect these technologies to continue to expand within manufacturing operations. As a result, cybersecurity threats – which are already a pressing concern for industry leaders – will grow even more. With sensors attached to machines on the plant floor and products at client sites, technology will be ubiquitous in manufacturing operations, giving cyber criminals more avenues into a company and additional opportunities to steal its intellectual property and sensitive data.

Our report found that while more than three-fourths of respondents said they had not experienced a cybersecurity incident in the last 12-18 months, only 19 percent of respondents said they are “very ready” to address cybersecurity risk. Further, 63 percent said they are only “somewhat ready.” This lack of confidence should be a red flag for an industry that’s under persistent siege from cyber threats. Fortunately, there are

always prevent a breach. Therefore, companies need to plan ahead for the worst-case scenario and be prepared to respond promptly in the wake of a breach. A manufacturer should have a clear incident response plan that accounts for the forensics work necessary to combat the breach and address the vulnerability, the legal effort required to comply with regulations, as well as the communications work involved in telling a clear and honest story to customers and reporters.

Take a Long-term View

Manufacturing company leaders must focus on many pressing priorities to ensure smooth operations and performance, resulting in little time for long-term planning. However, executives must take a longer-term view in two key areas to prepare their companies for success well beyond the next quarter: talent recruitment and business succession.

The challenges manufacturers face filling open positions on the plant floor have been well-documented. Nearly 80 percent of re-

spondents in our survey said it takes from three weeks to more than eight weeks to fill an hourly position. Still, the report suggests that companies aren't doing enough to proactively recruit and develop talent. Only 3 percent of respondents said they target recruitment efforts at the high school level, and only 11 percent said they build a pipeline of talent prior to having an open position. One positive is that 46 percent of respondents said they source skilled labor through vocational schools, which can be fertile ground for talent.

Overall, though, manufacturers need to prioritize talent recruitment and development as a core corporate priority in order to ensure they have the talent necessary to propel growth. In practice, prioritizing recruitment and development means treating recruitment as a 365-days-a-year process instead of an initiative that a company ramps up to fill an immediate need. It also means ensuring the company's website and recruitment materials are up-to-date and designed in a modern way that resonates with younger recruits. Finally, companies should increase their recruiting efforts with high schools and educate prospective employees about a career in manufacturing to counter negative perceptions that persist about the industry.

Manufacturing leaders also need to take a long-term, strategic view of their overall business. A company's current owner and executives won't be in their positions forever, and they need to think through what the next era of the business will look like, even if they expect that to be decades down the road. Our report found that only 25 percent of respondents have a written plan for their exits from the business. While this number increased from the 2017 findings, it's still far too low. Companies without a succession plan can face a messy transition after an owner leaves. By preparing a written exit plan, today's executives ensure the business will continue to operate smoothly far into the future.

Use All Available Tools

The manufacturers we surveyed said they view growth in existing domestic markets and new product or service development as their top two opportunities in the next 12 to 18 months. As they aim to create new products or services, they need to take advantage of the important financial tools available to them.

Research and development tax credits apply to companies if they are developing

new products or even improving existing products. As a result, many manufacturers are likely eligible – even though they may not think they qualify.

There's good news on this front in our report. Sixty percent of respondents said they use research and development tax credits, an increase from 52 percent in 2017. However, 40 percent of companies still don't use the credit, and many of them likely do work that applies. These credits typically equal 5 to 7 percent of a manufacturer's research and development expenses, which can add up to a meaningful amount. Manufacturers should take a hard look at their research and development efforts to see if they perform activities that may qualify under the law. They can then engage firms that specialize in research and development tax credit studies to complete a comprehensive audit and documentation of its activities.

Manufacturers that don't take advantage of these credits are leaving money on the table and can't afford to do that in today's competitive environment.

Embrace Change to Thrive in a High-tech Era

Sikich's 2018 Manufacturing Report offers a comprehensive look at the industry's priorities and challenges. Though it raises concerns about slow adoption of innovative technology, cybersecurity preparedness and talent recruitment, the challenges companies face come with opportunities.

We believe the manufacturing industry in Illinois and across the country has a bright future, and the companies that tackle their challenges proactively will charge ahead of their competition. On the other hand, the companies that adopt a status quo approach when it comes to technology, workforce and long-term strategic planning issues will fall behind more quickly today than ever before.

As the economy continues to improve, manufacturers need to confidently embrace the technologies that have the potential to transform their operations. And by coupling this adoption of technology with an assertive approach toward cybersecurity and long-term strategic issues such as the workforce, succession planning and tax strategy, manufacturers will arm themselves with a strong, holistic strategy to prosper as we enter this exciting next era of the industry. ♦

MAXIMIZE YOUR ROBOTICS INVESTMENT

Global spending on robotics is expected to reach \$87 billion by 2025. Yet, Sikich's Manufacturing Report found 40 percent of respondents have not implemented robotics in their operations. As manufacturers face mounting workforce pressures and the cost of implementation continues to drop, robotics can help companies remain competitive.

Manufacturers ready to realize the benefits of robotics should follow four steps to ensure they make a valuable investment.

1. Evaluate ROI

Manufacturers should assess all areas of their operations and determine where robotics fits best. For example, a robot in quality control could add efficiencies to the inspection process. Or, a robot that completes a dangerous task could improve a plant's safety.

2. Research

Industry trade publications, case studies, white papers and even YouTube videos can help a manufacturer determine the benefits of a robot and understand where robotics best fits into their company's operations. Additionally, trade shows provide manufacturers an opportunity to watch live demos and gain a better sense for how a robot operates.

3. Set Goals

Manufacturers should set performance targets to determine its robotics needs, such as speed, precision and payload. Key performance indicators to consider include takt time, cycle time, consistency and precision.

4. Choose the Right Partner

Manufacturers should look for a systems integrator who understands their industry. A knowledgeable integrator will be able to tailor the system to a manufacturer's specific needs and ensure safety controls to minimize risk after implementation.

Manufacturers that research, strategize and partner with a knowledgeable integrator will maximize ROI and minimize risks.

TAKE YOUR LIGHTING TO THE NEXT LEVEL WITH LIGHTING CONTROLS AND LED BULBS

AMEREN ILLINOIS

There are a number of energy-saving improvements which qualify for incentives and rebates, but making lighting upgrades is the simplest way to reduce your energy costs. LED lighting technology uses up to 80 percent less energy and lasts up to 25 times longer than other types of lighting.

If you've already upgraded your interior and exterior lighting to LEDs, consider integrating controls as your next step toward energy efficiency. Pairing LED technology with automated lighting control systems can help eliminate waste and save your facility a significant amount of energy. Automated controls is a great first step towards a smart facility – removing the need to change employee behavior.

each has strengths and weaknesses:

- **Infrared sensors:** detect motion from a heat source (such as a person) and therefore need to see the occupant, so they usually don't perform well in restroom stalls or office cubicles. Also, slight motions (such as typing on a keyboard) aren't always detected.

- **Ultrasonic models:** detect motion from objects using sound waves and are good at sensing small movements. They also don't need to see the occupant directly.

Occupancy and vacancy sensors are available as wall-mounted or ceiling-mounted units. To avoid false detection with ceiling-mounted sensors, it's important to specify a viewing range that matches the application. For example, a hallway sensor

Start by identifying spaces that are unoccupied on a regular basis, such as executive offices, copy rooms, restrooms and conference rooms. Selection of appropriate spaces requires an accurate understanding of how they're used.

Some controls can also help create a more productive work environment for your employees. Programmable controls can be paired with lights with color-tuning ability to allow a higher color temperature in the morning and a lower temperature in the afternoon to better match people's circadian rhythms.

Utilizing a networked lighting system can save your facility even more — up to 70% in lighting electric costs. Networking lights together allows the fixtures to communicate with each other and with a central controller, and provides additional benefits such as remote sensing, emergency control, tracking, and reporting.

Considerations for Exterior Lighting Controls

Exterior lighting is important for security as well as enhancing the appearance of your facility. While lighting patterns for parking lots and other outdoor spaces may seem simple, creating a design making the best use of that lighting can be complicated. The ultimate goal is to optimize light levels and distribution while minimizing energy use. Careful planning and collaboration are necessary to achieve those objectives.

Brightest Isn't Always the Best

Insufficient light can compromise safety. As a result, designs often focus on light output. While light levels are important, poor distribution can create too much lighting in some areas and dark patches in others.

"The conventional wisdom is that more light is better, but from a security standpoint, too much of the wrong kind of light, aimed in the wrong direction, can cause glare," says Eric Richman, Senior Research Engineer at the U.S. Department of Energy. "Moreover, security camera functionality depends on various lighting factors including uniformity, contrast, light color and intensity. No one type of lighting will be best in all situations."

Footcandles measure the amount of light

INTEGRATING LED TECHNOLOGY WITH A WELL-DESIGNED LIGHTING CONTROL SYSTEM WILL SIGNIFICANTLY REDUCE YOUR LIGHTING COSTS, WHILE IMPROVING COMFORT, SAFETY, AND SECURITY IN YOUR FACILITY.

Overview of Interior Lighting Controls

With the use of controls, lights can be turned on or off or adjusted based on actual need, such as real-time occupancy or ambient light levels. Daylight sensors detect the amount of natural light available and dim or turn off fixtures accordingly. Occupancy and vacancy sensors look similar and they both control lights, but they work in different ways. Occupancy sensors automatically turn lights on when someone enters a space and turns them off when the space is empty after a set time period. A vacancy sensor requires someone to turn on the lights when they enter a room. The lights still automatically turn off after the set time period, but the lights will stay off unless someone enters the room and manually turns on the switch. This can save even more energy by eliminating those extra minutes of unnecessary lighting.

There are two major types of sensors;

should look in two directions but not into an office, while a conference room sensor should pick up motion from anywhere in the room. Some of the most common failures of occupancy control systems are from inadequate sensor coverage or improper tuning of a sensor's sensitivity.

Coverage area of sensors depends on the room arrangement, room geometry, the presence of partitions, type of sensor, location of sensor, sensitivity setting and type of motion. Ultrasonic sensors cover a wider range than infrared sensors, but are more prone to false triggering from miscellaneous motion not within an unoccupied room. Wall-mounted sensors typically cover much larger areas than ceiling-mounted models. Integrating multiple sensors may be necessary to cover the entire area. Each sensor has controls to adjust the time interval before lights are turned off—typically ranging from 1 to 15 minutes.

Occupancy or vacancy sensors may not be a good fit for every part of your facility.

in a space. A study conducted by the Lighting Research Center found individuals felt safe and secure at one footcandle; anything more didn't improve their impressions.

Covering for Safety and Security

Good lighting design integrates the most effective light sources with appropriate height and location for the best coverage. The Illuminating Engineering Society outlines the most important considerations for effective safety and security lighting:

- **Horizontal illuminance:** the standard for assessing effective lighting because many tasks are horizontal in nature.
- **Vertical illuminance:** critical for security issues because identifying objects and their movement is best done by viewing their vertical surfaces.
- **Uniformity:** important for avoiding dark areas and enhancing the effectiveness of security cameras.
- **Glare:** light aimed in the wrong direction can cause glare, reducing visibility.

To optimize savings and security, it's important to incorporate these design elements into an energy-efficient lighting strategy.

Strategies for Energy Savings

So, how do you maintain a safe, secure environment while minimizing lighting costs? Effective strategies include the following:

- **Reduced wattage lamps:** consider installing lower wattage lamps and fixtures in areas with excess light. Typically, one to three footcandles of illumination at ground level is adequate for security. A simple, inexpensive light meter can be used to measure light levels around your facility.
- **Energy-efficient upgrades:** LEDs are an effective replacement option for conventional lamps, offering increased energy efficiency, improved durability and a longer rated life. LEDs provide excellent color quality, helping you save energy by reducing the amount of light output required. For security purposes, LEDs provide more uniform distribution and whiter light for better contrast.
- **Controls:** occupancy sensors and timers can save energy without compromising safety or security. Occupancy sensors activate all or some lights in an area when pedestrians or vehicles approach. Timers can switch lights on and off, or dim them, according to a set schedule. LEDs, with their instant-start and dimming capabilities, are a good fit for lighting controls.

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significantly reduce your lighting costs, while improving comfort, safety and security in your facility. Ameren Illinois offers generous cash incentives for a variety of lighting projects, including new construction lighting, interior and exterior LED

lighting, and integrated lighting controls. To learn more about lighting incentives available through Ameren Illinois or to request a free energy consultation, visit AmerenIllinoisSavings.com/Lighting. ♦



Energy costs typically account for 30% of a manufacturing facility's operating budget. The good news is that incentives from Ameren Illinois can reduce the costs to make energy-saving improvements that will help your facility take control of its costs and manufacture savings. From LED lighting upgrades to advanced lighting controls, we're here to help you with your next energy efficiency project.

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WORKPLACE IMMIGRATION COMPLIANCE ENFORCEMENT INCREASING IN 2018

WALTZ, PALMER & DAWSON, LLC

In 2017, ICE Director Thomas Homan announced that he has instructed Homeland Security Investigations to increase its time spent on worksite enforcement by "four or five times" in 2018. Recently, the Chicago ICE office has confirmed that so far this year, workplace compliance investigations have increased significantly for Illinois, Wisconsin, Indiana, Michigan and Missouri, which is in consistent with Director Homan's announcement. While not all companies sponsor foreign workers, all are required to comply with the I-9 requirements. Companies are being cautioned to review their I-9 forms to ensure they have one on file for each current employee. Not having a properly completed I-9 form can result in fines of \$220 to \$2,191 for each paperwork violation of an I-9, and \$548 to \$19,242 for each unauthorized worker employed. ICE is expected to increase these fines annually.

Given the current heightened enforcement environment, companies should develop policies and procedures to ensure they stay in compliance.

What Can Trigger an I-9 Audit?

There are no set rules that are known to trigger an I-9 audit. Audits can be prompted by reports from disgruntled former or current employees; reports from active citizens; reports from other law enforcement agencies; prior history of non-compliance; or no reason at all. Companies can be randomly selected for audits with no known triggers.

Some companies claim that they have been targeted for an I-9 audit by ICE because of the industry they are in (i.e.: manufacturing, hospitality, service). Although ICE does not target any certain industry, companies who are in industries that have traditionally relied on large numbers of undocumented labor should take precautions to ensure their organization has implemented I-9 compliance protocols. Furthermore, while some companies may think that they are safe from an I-9 audit because of their size, ICE has announced and shown that size of a company does that matter. ICE has audited small companies with only a few employees to multi-national companies with thousands of employees.

How Do You Know if Your Company is at Risk?

Since ICE has broad authority to conduct audits, no company is actually safe from a potential I-9 audit by ICE. There are many factors that companies should take into consideration in analyzing their risks for an I-9 audit. Some of these factors include:

- I-9 Forms are not entirely completed
- Management is reluctant to question the authenticity of any I-9 documentation
- The company has received Social Security no-match letters and does not question employees regarding discrepancies or otherwise investigate
- Management does not address rumors or complaints that there are unauthorized employees or unauthorized contractors

- The pool of new hires comes mainly from the existing workforce including their friends and relatives

What Can Companies Do?

In order to ensure companies are in compliance, they should conduct a preventative internal audit of the I-9 files to see if there is a pattern of violations requiring remediation. Such an audit should be conducted by, or under the close supervision of, a lawyer or HR personnel familiar with I-9 rules. Companies should establish a regular training program for HR professionals regarding the most current I-9 compliance rules, and also establish a uniform company policy regarding I-9s. Furthermore, companies should centralize the I-9 recordkeeping process. ♦




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MEMBER NEWS

Martin Engineering Finds Solution to Workforce Challenge in Apprenticeship Works



Martin Engineering faced a problem, one that could hinder production. The company's most experienced tool and die maker was planning to retire within five years. How could his extensive knowledge and his critical skills be passed on to other employees?

"We knew we had to do something to get a tool-and-die apprenticeship going," said Kathy Erdmann, training and development manager for the Illinois manufacturer.

Established in 1944, Martin Engineering is the leading manufacturer of bulk materials handling equipment for dozens of industries, including mining, agriculture, and others. The company employs 1,000 worldwide, with 250 at its headquarters in Neponset, Illinois.

Tool and die making is critical to production at Martin Engineering, and it's difficult to find people with the right kinds of skills and knowledge to fill those positions, Erdmann said. With their experienced tool and die maker retiring in the near future, she searched for a training solution.

The resolution presented itself through Apprenticeship Works, the National Advanced Manufacturing Apprenticeship Partnership at the Robert C. Byrd Institute (RCBI). Online training provider Tooling U-SME referred her to the Apprenticeship Works model at RCBI.

Registered apprenticeship programs require on-the-job training and related instruction. Martin Engineering is in a rural part of Illinois, an hour away from the nearest community college. For that reason, the company wanted their apprentices to do their related instruction online and at the plant.

Supported by an American Apprenticeship Initiative grant from the U.S. Department of Labor, Apprenticeship Works helps

manufacturers across the country implement and manage apprenticeship programs. Tool & die making is one of 17 advanced manufacturing occupations addressed by the initiative.

"Apprenticeship Works is helping manufacturers across the United States tackle their most critical training needs," said Charlotte Weber, Director & CEO of RCBI.

The Apprenticeship Works staff worked with Martin Engineering to customize a tool and die apprenticeship pro-gram specific to its work processes and provided training on-site to mentors who supervise apprentices.

Two employees were registered as apprentices, one who was new to the department and another with some experience. Both employees took their related training online and RCBI provided on-site train the trainer instruction for the company mentors. The apprentices also did extensive on-the-job training with the journey worker/mentor in the department. Both apprentices were given credit for their knowledge and skills through assessment.

One apprentice has completed the program, while the other apprentice has a year to go.

"We were surprised how excited the individuals were, how worthwhile they thought it was," Erdmann said. "The existing journeyman really felt proud to be able to share his knowledge and mentor in a professional capacity."

General Mills Belvidere Looking to Hire 75 New Employees to Make LÄRABAR



General Mills of Belvidere, Illinois announced in May that the company will be adding LÄRABAR, the Original Fruit and Nut Bar, to the production line.

LÄRABAR are nutritional energy bars made with unsweetened fruits, nuts, and spices. The bars are gluten free, vegan, non GMO, and contain no more than nine in-

gredients. Flavors include Chocolate Chip Cookie, Apple Pie, and Blueberry Muffin.

"We couldn't be more excited about this opportunity for our plant and also for the community," said Plant Manager Jean Loesh. "We're already under construction and we hope to have the space completed in October of this year. The best news of all is that we're hiring, and we're going to have 75 new jobs here at our plant."

General Mills expects to create another 90 jobs over the next two years.

"This is a great thing for the state of Illinois and for the people living in the Belvidere and surrounding area," said Deputy Governor Leslie Munger. "Additions like this build up our manufacturing and also bring jobs to Illinois. Illinois is a place that is really built on hard work, and manufacturing has been the core of what developed Illinois to what it is today."

"We've been through a lot as a community over the last few years, and I have to say that there isn't a better partner than General Mills," said Mike Chamberlain, Mayor of Belvidere. "We are starting to change the idea of what Illinois represents."

Belden Universal Announces Design and Performance Upgrades for its Pick and Place Universal Joints



Belden Universal, a leading global manufacturer of custom universal joints and highly specialized mechanical power transmission products announced that it has recently implemented critical design upgrades to its universal joints for pick and place (Delta) robots. The redesign project was necessitated by industry demand (from both OEMs and end users) for space-saving components supporting heavier payloads.

CONTINUED ON PAGE 28

The stainless-steel component is based on Belden's unique hybrid design, combining the higher torque capacity of a pin + block joint with the needle bearing's ability to continuously operate at high speeds with low friction. It mitigates corrosion issues, contamination, burnout, and joint seizure.

The redesign project concentrated on the joint's center section. It utilizes stronger, precision needle-roller bearings with larger outside diameters, making it capable of supporting applications with larger payloads and higher torque requirements. Torsional backlash was minimized according to stringent specifications. Modifications to the yoke's ear profile resulted in a higher, 55° angle, further supporting precise positioning and orientation of the robotic arms. With an overall length of just 48mm, the new universal joint delivers a compact, space-saving design at high strength, speed and flexibility.

The favorable price point and enhanced design qualities make Belden's new pick and place universal joint an ideal replacement for similar components in the marketplace.

ExxonMobil and Employees Contribute More Than \$1.3 Million to Illinois Colleges and Universities



ExxonMobil and its employees contributed more than \$1.3 million to 36 institutions of higher education across Illinois as part of the ExxonMobil Foundation's 2017 Educational Matching Gift Program.

ExxonMobil employees, retirees, directors and surviving spouses contributed more than \$357,000 to 36 Illinois colleges and universities, which was matched by more than \$942,000 in unrestricted grants from the ExxonMobil Foundation. Although grants are unrestricted, colleges and universities are encouraged to designate a portion to math and science programs supporting student engagement.

ExxonMobil's program matches donor pledges on a 3:1 basis up to \$7,500 to qualified colleges and universities in the United States, as well as the American Indian College Fund, Hispanic Scholarship Fund and the United Negro College Fund. More than \$665 million has been contributed to such

American institutions over the more than 50 years the company has offered the Educational Matching Gift Program.

"We have a long history of supporting a range of efforts to improve education in the United States," said Kevin Murphy, president of the ExxonMobil Foundation. "Our employees and retirees are similarly committed to investing in quality education, as demonstrated by the impressive amount they have chosen to donate. We're confident that our contributions as well as the generous support of our employees and retirees will help create a stronger future for today's students."

Nationwide, almost 840 institutions received almost \$50 million through the 2017 Educational Matching Gift Program.

In addition to the Educational Matching Gift Program, ExxonMobil and the ExxonMobil Foundation support and develop programs that encourage students, particularly women and minorities, toward careers in science, technology, engineering and math, as well as teacher training initiatives.

Tek Pak, Inc. Wins Workplace Wellness Award



Each year Berkley Accident and Health recognizes captive members for their efforts in advancing wellness initiatives at their companies through the RAY Award ~ Risk Achievement of the Year Award.

Tek Pak was honored to receive the 2017 award this May presented at Tek Pak's semi-annual employee wellness luncheon.

Worksite wellness brings numerous benefits for employees as well as employers, including:

- Improved employee health and well being
- Improved employee job satisfaction and retention
- Lower healthcare costs for both associated with lower employee health risks and improved health status
- Ability to affect workers' related expenses through integration of safety and health promotion
- Reduction in absenteeism and increase in productivity

Nominating Tek Pak for the award was

their broker, The Horton Group, "Over the past several years The Horton Group has created wellness programs for hundreds of our clients, typically starting from scratch. When we partnered with Tek Pak as their broker/consultant in 2017 it was very clear they were already well ahead of the curve with their wellness program efforts compared to the majority of their peers (of similar size and shape). The level of participation in biometric screenings, positive impact on employees' lives, coordination of an extremely well thought out health fair, and overall buy-in from management and executive leadership has put Tek Pak and their wellness program in an elite class."

"In the last two years we've put strong emphasis on increasing employee awareness of these many options of the wellness program and striving to make them easy to access. This award is affirmation that we're on the right track," stated Renee Carter, Human Resources Manager for Tek Pak.

"Making wellness a priority is a true win-win for Tek Pak," said Tony Beyer, President. "Research shows that employees who participate in wellness programs are happier, healthier and more productive. That's a benefit to both the employee and the company."

Bison Gear & Engineering Employees Volunteer Their Time at the Northern Illinois Food Bank through BisonCares



On June 21, 2018, 10 members of the BisonCares team, led by Bison Gear & Engineering CEO John Burch, donated personal time to help the Northern Illinois Food Bank (NIFB) carry out their mission of solving hunger. After a brief orientation of the process, NIFB assigned the task of converting pallets of potatoes into 5 lb. distributable bundles. The team made short work of the mountain of potatoes by sorting, inspecting, packing, measuring, and loading them into a shipping container.

"The BisonCares team along with two other corporate groups successfully packaged 8,200 lbs. of potatoes which will contribute to approximately 7,400 meals for hungry families throughout Northern Illinois," said Andrew Burnette, Director of BisonCares. "The team really enjoyed the event and we

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look forward to our next community support outing which is planned for August 2018.”

About BisonCares:

BisonCares was established in 2005 due to an overwhelming response by the employees of Bison Gear & Engineering Corporation to support the victims of Hurricane Katrina. Since then, Bison’s employees have grown BisonCares into an employee lead 501(c)3 charity organization. Their mission is to support worthy causes locally, nationally, and globally through the donation of time, money, food, and labor to better the lives of people in need.

Wiegel Tool Works Achieves IATF 16949:2016 Quality Certificate



Wiegel Tool Works, Inc. (WTW) announced the successful completion of their latest quality assessment and their achievement of IATF 16949-2016 quality certificate, officially issued by ABS Quality Evaluations, Inc. on May 31, 2018. The new certification will supersede and replace Wiegel Tool Works’ current ISO/TS 16949-2009 certification and act as their quality management standard for operating in the automotive industry.

IATF 16949-2016 is a new global industry standard created by the International Automotive Task Force (IATF) that defines the requirements of a quality management system for organizations in the automotive industry and includes the latest revisions contributed by international automotive trade associations, auditors, suppliers, and original equipment manufacturers worldwide. IATF 16949-2016 replaces ISO/TS 16949-2009, the automotive industry’s most widely used international standards for quality management, established to signify all quality assessments and certification systems worldwide in the automotive supply chain.

“Being at Wiegel for 28 years and a part of the quality department for 22, I’ve been able to see our company grow as a result of having good quality systems put into place”, says Randy Hughes, Quality Director at Wiegel Tool Works and the lead role behind the initiation of the new certification. “We

experienced a highly significant 70 percent improvement in our quality system since the change to this new standard with a very aggressive time frame to complete the transition. A large part of this change had to do with top management’s role and immense involvement in the process. Fortunate for me, this is our company’s strength. The Wiegel family has always been the ones leading the charge in this area. They don’t look at IATF 16949-2016 as just an industry required quality system, they look at it simply as the way they run their business. Our efforts to stay compliant and follow an appropriate quality management system is used to continuously improve our entire company in all areas. It is the Wiegel family and our team’s commitment to quality and continuous improvement that allowed this transition to go as smoothly as it did and makes us the great company that we are.”

Wiegel Tool Works continues to place high value and dedication to quality control, process audits, continuous improvement, and proper credentials to embrace their mission of being a leading, trusted partner for precision metal stamping programs for industries worldwide. It is essential for automotive industry manufacturers to feel confident that quality operates throughout the automotive supply chain from start to finish. With the achievement of IATF 16949-2016, Wiegel Tool Works is deemed qualified as a selected supplier for the automotive industry by international standard and OEM and tier manufacturers can be certain partnering with Wiegel Tool Works promises innovative programs are manufactured at the highest quality with zero defects, and to exact specification.

Jeep Cherokee Tops the 2018 Cars.com American-Made Index™

Jeep

On June 21 of this year Cars.com released its annual American-Made Index to help car shoppers determine the “most American” vehicles of 2018 that have the greatest impact on the U.S. economy. To arrive at this list, Cars.com looked at which cars are manufactured in America, have the most American parts, and support the most American factory jobs.

In today’s global economy, buying American can be complicated. According to a

recent Cars.com survey, 71 percent of consumers believe buying American contributes significantly or substantially to the U.S. economy. This year’s ranking reveals that four of the top 10 American-made vehicles are produced by a foreign-based automaker. The Jeep Cherokee moves up one spot from the 2017 list. It’s Illinois-built, though Jeep is a division of Fiat Chrysler Automobiles (FCA), an Italian corporation headquartered in London. Still, the Cherokee comes in as the most American-made car of 2018 due to its high domestic-parts content, U.S.-manufactured engines and transmissions and FCA’s large U.S. factory workforce.

The Cars.com survey revealed many U.S. consumers want to support their neighbors and buy American cars, trucks and SUVs. Notably, 19 percent of survey respondents believe it is unpatriotic to buy vehicles that are not American-made. Additional survey insights include:

- 28 percent of respondents would only consider an American manufacturer when purchasing a vehicle.
- Before buying a car, two-thirds (66 percent) of Americans say they first find out where a car is built or where its automaker is headquartered.
- 82 percent of respondents believe that buying American-made vehicles will create more jobs in the U.S.

The Honda Odyssey minivan and Honda Ridgeline pickup truck round out the top three. While Honda is a Japan-based automaker, both of these cars are built in Alabama with high domestic content and U.S.-sourced drivetrains.

The Chicago-built Ford Taurus lands at number four, followed by the Chevrolet Volt – the index’s highest-ranked newcomer and the first ever plug-in vehicle on the American-Made Index. Plug-in cars, whether they’re fully electric or a plug-in hybrid like the Volt, often lack high domestic content amid global sourcing for batteries, but the Volt’s battery pack is assembled near Detroit, with cells from a plant in western Michigan.

“In this new era of import tariffs and ongoing renegotiations of long-standing trading pacts, it’s increasingly important for consumers to understand a product’s homegrown credentials, especially when it comes to purchasing a modern automobile,” said Joe Wiesenfelder, Cars.com’s executive editor. “If consumers care about making car purchases that support the U.S. economy, it means looking beyond the assembly location.” ♦

NEW IMA MEMBERS

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Pekin, IL

NAVISTAR, INC.

Lisle, IL

BEER NUTS, INC.

Bloomington, IL

ADVANCED TECHNOLOGY SERVICES INC

Peoria, IL

HM MANUFACTURING

Wauconda, IL

FRESH EXPRESS / CHIQUITA BRANDS, L.L.C.

Streamwood, IL

KOHL WHOLESALE

Quincy, IL

JABAT, INC.

Olney, IL

BELDEN UNIVERSAL

Hillside, IL

LABELS & SPECIALTY PRODUCTS

Saint Charles, IL

LAKE COUNTY PARTNERS, INC

Lincolnshire, IL

WITTENSTEIN HOLDING CORP.

Barlett, IL

KITAGAWA-NORTHTECH, INC.

Schaumburg, IL

S. H. BELL COMPANY

Pittsburgh, PA

CORES FOR YOU, INC

Hamilton, IL

ELECTRICAL MATERIALS COMPANY

Earlville, IL

METAMORA INDUSTRIES

Metamora, IL

LEADERS BANK





Oak Brook, IL

BMO HARRIS BANK N.A.

Naperville, IL

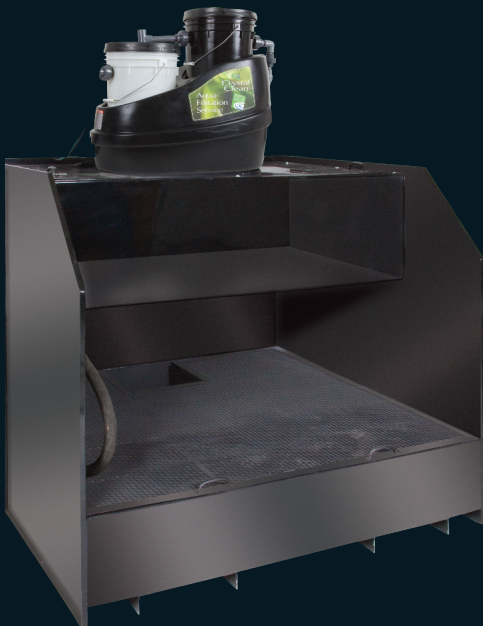


Machining Centers/Grinding Units

-  Removes all oils and the negative effects of oily machining fluid, including tacky fluid, oil misting, odors and dermatitis from bacteria caused by oil contamination.
-  Removes suspended metal fines and solid particulate down to 1 micron, thereby increasing tool life and providing a better part finish from particulate removal.
-  Increases coolant bath life and eliminates coolant change outs, reducing down time, coolant purchases and waste disposal while increasing production.
-  Eliminates continuous treatment methods and product purchases such as biocides oil skimmers and absorbent pads.

Mop Water Recycling

Removes all oils and suspended solids from used mop water solution, while maintaining cleaning chemistry levels. 'Recycled' solution allows for continued use in mopping and floor cleaning operations. Recycling mop water solutions provides soap purchase savings and eliminates the need for discharge or disposal.



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