**SHOULD YOUR COMPANY HAVE AN EMPLOYEE HANDBOOK?** 

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Planning your manufacturing facility expansion

> Variable frequency drives can significantly lower energy costs

Growth in output has slowed more than expected based on GDP tracking data, but private demand has been resilient along with job growth at midyear. So we have cut our Q4/Q4 growth estimate to 2% tentatively ahead of more complete Q2 data and comprehensive multi-year GDP revisions at month-end. Housing, capex, car sales and employment all are on moderately strong trajectories with still very accommodating financial conditions despite a back up in interest rates. The sequester is at its most intense now, and it will be especially key to monitor nearterm demand for any spillover, which so far has been scant. Fiscal deficits may drop below 4% next year, and so the impetus for major budget reforms has waned.

Fed officials continue to emphasize that a near-term start to scaling back QE still would leave policy on a highly accommodative path where no rate hikes are planned for a long time. The fiscal drag on Q2 growth and a high bar for a satisfactory jobs outlook will likely sustain the current pace of purchases until the September meeting. But tapering could extend QE until next spring when unemployment is forecast to drop below 7%. Low inflation suggests policymakers will be slow to signal a start to exit strategies through 2014.

The outlook for inflation remains softer than policymakers' medium-term goal of 2%. Slower growth abroad has reduced pressures on domestic goods prices and labour costs remain subdued. We expect a gradual move closer to the 2% target underpinned by domestic demand and an eventual pickup in global growth. Labor costs should firm somewhat with continued gains in hiring demand.

					2013			2014				
		2012	2013F	2014F	1Q	2QF	3QF	4QF	1QF	2QF	3QF	4QF
GDP	SAAR				1.8%	0.5%	2.6%	2.9%	3.2%	3.1%	3.1%	3.2%
	YoY	2.2%	1.6%	2.9%	1.6	1.4	1.3	2.0	2.3	2.9	3.1	3.1
Domestic Demand	SAAR				1.3	1.0	2.5	3.0	3.1	3.3	3.4	3.4
	YoY	2.1	1.6	3.0	1.5	1.4	1.6	1.9	2.4	3.0	3.2	3.3
Consumption	SAAR				2.6	1.5	2.8	3.0	3.3	3.4	3.5	3.4
	YoY	1.9	2.1	3.1	1.9	1.9	2.2	2.5	2.6	3.1	3.3	3.4
Business Investment	SAAR				0.4	2.1	4.5	6.2	5.0	5.3	5.9	7.3
	YoY	8.0	3. <b>9</b>	5.2	3.7	3.3	4.9	3.3	4.4	5.2	5.6	5.8
Housing Investment	SAAR				14.0	7.2	15.6	20.7	18.9	18.5	16.6	11.4
	YoY	12.1	13.6	17.2	13.3	13.0	13.5	14.3	15.5	18.4	18.7	16.3
Government	SAAR				-4.8	-2.4	-1.5	-1.1	-0.9	-0.7	-0.6	-0.6
	YoY	-1.7	-2.8	-1.0	-2.2	-2.7	-3.9	-2.4	-1.5	-1.0	-0.8	-0.7
Exports	SAAR				-1.1	5.9	3.6	3.7	4.2	4.4	4.6	5.0
	YoY	3.4	1.5	4.3	0.8	0.9	1.3	3.0	4.3	4.0	4.2	4.6
Imports	SAAR				-0.4	9.3	4.1	4.3	5.2	5.7	5.6	5.5
	YoY	2.4	1.7	5.3	-0.6	0.9	2.1	4.3	5.7	4.8	5.2	5.5
PCE Deflator	YoY	1.8	1.1	1.9	1.2	1.0	1.2	1.3	1.6	2.2	2.1	2.1
Core PCE Deflator	YoY	1.7	1.2	1.9	1.3	1.0	1.2	1.4	1.5	1.9	2.0	2.1
Unemployment Rate	%	8.1	7.5	6.8	7.7	7.6	7.5	7.1	6.9	6.8	6.8	6.6
S&P 500 Profits (US\$ Per Share)	YoY	6.1	6.0	6.4	5.0	6.3	6.0	6.8	6.4	6.7	6.7	6.7

#### United States — Economic Forecasts, 2012-2014F

Notes: F Citi forecast. E Citi Estimate. YoY Year-to-year percent change. SAAR Seasonally adjusted annual rate

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, I/B/E/S, Treasury Department, Wall Street Journal and Citi Research forecasts

#### Interest Rate and Bond Market Forecasts as of 17 July 2013

	-	Quarterly Average					
	Current	3Q 13	4Q 13	1Q 14	2Q 14	3Q 14	4Q 14
US							
Policy Rate (Fed Funds) End Quarter	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3-Month Libor	0.27	0.30	0.34	0.40	0.50	0.60	0.68
2 Year Treasury Yield	0.34	0.37	0.45	0.55	0.65	0.75	0.85
5 Year Treasury Yield	1.42	1.39	1.40	1.53	1.68	1.80	1.98
10 Year Treasury Yield	2.60	2.60	2.65	2.80	3.00	<b>3</b> .15	3.25
30 Year Treasury Yield	3.66	3.68	3.78	3.98	4.20	4.33	4.38
2-10 Year Treasury Curve	226	223	220	225	235	240	240
2 Year Swap Spread (Swap Less Govt), bp	18	18	19	20	20	20	20
10 Year Swap Spread (Swap Less Govt), bp	22	19	13	8	5	5	5
30 Year Swap Spread (Swap Less Govt), bp	-2	-5	-10	-14	-18	-23	-25
30 Year Mortgage Yield	4.48	4.49	4.53	4.60	4.70	4.80	4.93
10 Year Breakeven Inflation	205	218	235	245	248	243	240

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## **Summer 2013**



## Using data to forecast, plan and 16 manage your energy spend

Your energy strategy can be actively managed and dynamically deployed to take advantage of market movements and end-use operational flexibility to lower total cost over time.

How recent wholesale market changes impact long-term
electric purchasing strategies in the Ameren
service territory — from Constellation14
Planning your manufacturing facility expansion —

•••	• • •		
by Boris Hornjak	<b>Graycor Construction</b>	Company	23

#### Columns

<b>President's Report:</b> Illinois' energy future looks promising, partially due to wind power and lower natural gas prices on the horizon <b>P</b>	Page 4
<b>Legislative Report:</b> Not every Illinois government agency is defective — there are state agencies that are doing an excellent job P	Page 6
Human Resources: Does your company have an Employee Handbook? More often than not, an employee handbook promotes the employer's interests — from Deutsch, Levy & Engel, Chartered F	Page 7
Management Techniques: Part II of this two-part series explains why it is generally a good idea to contest OSHA citations — from the Business Law Network of Chicago	Page 9
Manufacturers & Technology: Variable frequency drives can significantly lower energy costs over time — from SAIC Energy, Environment & Infrastructure, LLC	age 11
Government Regulations: Learn about the new guidelines for Hazardous Communication Standards issued recently by OSHA — from National Safety Consulting Pa	age 13
<b>Offshore Manufacturing:</b> Laws are changing and increasing labor disputes threaten less costly labor in China — from Faegre Baker Daniels Pa	ige 19
<b>Energy Issues:</b> If you are a Nicor Gas customer, you will want to read this article about their Energy Efficiency Program — from Resource Solutions Group on behalf of Nicor Gas	age 21
Member News: News for and about IMA members around the state Pa	ige 28
New IMA Members: Welcome! Pa	ige 30
IMA Calendar of EventsPa	ige 30
The Illinois Manufacturer is underwritten by Constellation — an Exelon Com	pany

## **Mission Statement**

The object for which the Illinois Manufacturers' Association was formed is to strengthen the economic, social, environmental and governmental conditions for manufacturing and allied enterprises in the state of Illinois, resulting in an enlarged business base and increased employment.

Chairman

Michael Holewinski President Gregory W. Baise

Editor Stefany J. Henson

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#### President's Report GREGORY W. BAISE

## **Illinois' energy future looks promising**



Thirty manufacturing facilities for making wind components are now based in our state and Illinois now stands as the number four state in the country in terms of installed wind power. ith energy being one of the top three budget items for most manufacturers, the energy market outlook in the Midwest is a bright spot and a source of encouraging news for Illinois manufacturers. Lower natural gas prices, driven to a great extent by technology-enabled access to vast domestic U.S. natural gas supplies, have been a boost to businesses — especially in Illinois.

The Chicago Fed Midwest Manufacturing Index (CFMMI) data illustrates the recovery in the manufacturing sector. National steel output increased by 0.8 percent from its May, 2012 levels at both the regional and national levels. Regional machinery output was up 1.0 percent from last year's levels. and the Midwest's automotive output was up substantially, by 9.5 percent in May relative to May, 2012.

Wind power is another contributor to the economic landscape in Illinois. Thirty manufacturing facilities for making wind components are now based in our state and Illinois now stands as the number four state in the country in terms of installed wind power. The approximate 2,700 megawatts of wind generation capacity (enough to power 750,000 homes) is operational today with significantly more capacity anticipated to come online in the next few decades, as there are more than 16,000 megawatts of new Illinois-based wind projects in various stages of planning.

The addition of clean electric generation from wind farms will help to partially offset the planned retirement of coal-fired power generation plants. Stricter environmental regulations and cheap natural gas supplies have led to plans for the retirement of 62 coal-fired power generating units producing over 6,400 megawatts of power in the Midwest Independent System Operator (MISO) between now and 2018, according to a Platts analysis. However, another factor that puts upward pressure on energy prices is the increasing average electric demand that is rising between 1-2 percent per year. High-gas-consumption industrial users' demand is increasing at a much higher rate of 8-10 percent annually. While electricity prices are currently low, the construction of capital-intensive transmission lines to move the electricity from wind farms to connect to the grid is causing transmission and other line item costs on your electric bill to materially increase. Some line items will be increasing by a factor of three or four times between now and 2016.

We encourage all of our members not to become complacent about actively managing future energy costs just because costs are relatively low today. The market insights provided by regular IMA energy market updates are designed to help you understand the changing dynamics that affect not only energy prices, but steel, metal, rubber, plastics, chemicals, fertilizer and other commodities as well.

In addition, all IMA members are invited to receive a complimentary Energy Strategy Planner analysis (through our long-time endorsed energy supplier, Constellation) that provides a customized budgetary outlook of various procurement strategies that you might wish to employ given today's energy market conditions.

In this increasingly complex business environment, with many socio-economic factors impacting your business, we at the IMA continue our quest to be a valued and relevant source of education, service and advocacy for you, your staff and your business.

Ang. C.

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## Legislative Report

## A tale of two agencies



As a result of IDES efforts to fight waste, fraud and abuse, more than \$231 million of direct savings has been realized by preventing dollars from being paid on fraudulent claims and recovering these dollars when the fraud was not preventable. s Charles Dickens wrote nearly 150 years ago, "*it was the best of times, it was the worst* of times, it was the age of wisdom, it was the age of foolishness." If Dickens was alive today, he might be inclined to offer a similar commentary when comparing the Illinois Department of Employment Security and Illinois Department of Insurance in their respective roles ferreting out waste and fraud in unemployment insurance and workers' compensation.

These two systems are often cited by employers as costly impediments to doing business in Illinois. In both systems, the Illinois Manufacturers' Association worked proactively to provide the necessary tools allowing the agencies to do their jobs policing the systems. Outcomes are as different as night and day.

Under the excellent leadership of Director Jay Rowell, the Illinois Department of Employment Security has prioritized protection of the Unemployment Insurance Trust Fund. As a result of IDES efforts to fight waste, fraud and abuse, more than \$231 million of direct savings has been realized by preventing dollars from being paid on fraudulent claims and recovering these dollars when the fraud was not preventable.

Every week, the Department of Employment Security compares the list of individuals collecting unemployment against lists that would suggest the individuals do not qualify for temporary help such as jail logs or new hire lists. Simply cross matching databases have prevented the payment of \$124.8 million in claims. In similar fashion, Director Rowell approached the business community and labor unions with a plan to confiscate federal tax refunds of those individuals who knowingly collected unemployment insurance benefits via fraud or while working. Legislation authorizing this change was enacted in 2011 and more than \$85.7 million has been recouped.

Moving forward, IDES is now phasing-in a new monthly wage reporting system that will make Illinois the first state in the nation to use this data to determine eligibility for UI fraud and other safety net programs like food stamps and Medicaid. This is estimated to save an additional \$100 million. The Department is also paying for Assistant Attorney Generals to prosecute criminal fraud cases brought by federal and local prosecutors.

In striking contrast, the Illinois Department of Insurance has failed miserably when it comes to rooting out fraud in Workers' Compensation. While their rhetoric that "the business environment in Illinois could benefit significantly from greater fraud protection" sounds good on paper, their actions don't back up the talk despite new powers provided to the agency.

In 2005, the Illinois Manufacturers' Association and others in the business community created the first statute in one hundred years of workers' compensation that specifically addressed and criminalized workers' compensation fraud. As part of the reform effort, a new investigative Workers' Compensation Fraud Unit (WCFU) was established and funded while eight specific fraudulent acts including intentionally presenting a fraudulent claim or statement for the purpose of obtaining benefits were put on the books. The Fraud Unit is supposed to investigate complaints submitted by mail, email or telephone and forward results for prosecution.

Statistics from the Department of Insurance show an appalling lack of results. In 2012 alone, the Fraud Unit only investigated 64 allegations of insurance fraud with nearly half of these cases opened in previous years. Only 18 cases were referred to authorities for prosecution last

(continued on page 8)

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## Should your company have an employee handbook?

llinois is an employment at-will state. This means that without a contract providing for an employee's employment for a specific duration of time, an employee can be terminated for a good reason, a bad reason or no reason at all, as long as the termination is not discriminatory, in violation of a contractual provision or violative of public policy. The question arises whether having an employee handbook is a benefit or detriment to an employer. More often than not, an employee handbook promotes the employer's interests and is a useful tool in promoting the employer's policies.

#### The elements of an employee handbook

An employee handbook, at its core, is the formalization of the employer's policies relating to workplace conduct, compensation, attendance, vacations, personal days and what is expected from employees in terms of professionalism and basic responsibilities. It can address such things as the employer's dress code, alcohol and/or drug policy, work hours, attendance and use of office supplies or computers. It can also set forth the employer's expectations regarding workplace conduct, employee discipline and equal employment opportunity policies. It is a useful tool in communicating what is expected of employees in the course of their employment. Advantages of an employee handbook

The primary benefit of an employment handbook from the employer's standpoint is clarity. This is the employer's opportunity to state what conduct simply will not be tolerated in the workplace, what expected work hours are and, for example, how the employer calculates such benefits as vacation time, flex time and/or paid time off. Having a policy in writing which an

employee signs as having received and read eliminates potential claims that policies were not communicated to employees or simply did not exist. It also may dispel certain claims as to how vacation time should have been calculated, when break time was and what holidays are compensated days off. From the employer's standpoint, there is an advantage to communicating such expectations and policies. From the employee's perspective, there is a benefit of knowing with clarity what is expected by the employer and what the rules of permissible conduct, job performance, supervision, employment reviews and personnel policies are. A well written employee handbook can resolve ambiguities that may otherwise arise in the course of an employment.

An advantage of having an employee handbook is consistency. Despite an employer's best intent, in the absence of a written document setting forth an employer's policies, an employer runs the risk that its policies may be applied inconsistently. A danger in treating similarly situation employees differently as a consequence of not having a clear policy is that it can result in potential claims being made against the employer. The consistency that an employee handbook facilitates is, on balance, an advantage to both employers and employees.

#### The perceived detriments of an employee handbook

There are very few valid reasons for an employer not having an employee handbook. However, many employers are concerned that having a handbook will be the equivalent to the grant of contractual benefits to employees. This concern is alleviated to a large extent through having a clear provision in the handbook that neither it nor the policies contained therein constitute a contract or create any contractual obligations on the part of the

see EMPLOYEE HANDBOOK page 8



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#### LEGISLATIVE REPORT

Cont. from page 6

year with three cases resolved with convictions and fines totaling slightly more than \$9,000. By comparison according to WorkCompCentral, more than 10,000 fraud reports are reported to the California Department of Insurance by Los Angeles County alone, a municipality that has three million fewer residents than Illinois.

Moving forward, the Illinois Manufacturers' Association plans to champion legislation moving the entire Workers' Compensation Fraud Unit from the Department of Insurance to the Illinois Workers' Compensation Commission where the new director has expressed an interest in combatting this problem. We can only hope that he'll follow in the lead shown by Director Rowell and the Department of Employment Security.

#### **EMPLOYEE HANDBOOK**

Cont. from page 7

employer. Case law has upheld such exculpatory clauses. Moreover, having a policy manual can also be used to rebut an employee's claims that no policy existed or was not communicated to him prohibiting the conduct at issue in a particular case. Accordingly, an employment handbook can be a useful tool for the employer in the event of litigation initiated by the employee including but not limited to wage cases, wrongful termination cases and grievances.

## Implementation of an employee handbook

Even though an employee handbook can be written in such a way that it rebuts claims that it or its contents are contractual in nature, an employer must be mindful that once it articulates what its policies are, those policies must be implemented consistently. A failure to apply policies consistently can lead to the very results that handbook is intended to alleviate including claims by an employee that he was treated arbitrarily. If an employer has a policy and inadvertently applies it to some but not other employees, it may unintentionally create a basis for a discrimination or wrongful termination claim. Thus, before dissemination of an employee manual, an employer must be prepared to abide by the policies, determine that it accurately communicates the employer's policies and procedures and be prepared to articulate and apply those policies consistently.

#### Updating an employee handbook

Once an employee handbook is adopted by the company, an employer should review its policies at periodic intervals with its attorney to determine whether the handbook should be updated and/or modified. Updates might be necessary from time to time to comply with changes in the law or to meet the needs of the employer or its workforce due to changing conditions and circumstances. Accordingly, once an employee handbook is adopted, it must be reviewed from time to time to ensure that it accurately reflects the policies and needs of the employer and comports with the law.

## Employee handbooks must provide for flexibility

Flexibility should always be provided for in the handbook so as to not "handcuff" an employer from making necessary employment determinations. For example, a handbook may list examples for grounds for termination but should also provide that the list is not exhaustive and the employer reserves the right to discharge an employee for reasons not listed in the handbook. Similarly, although the handbook may provide for a universal mode of computing vacation time, the employer may include a provision in the handbook that it reserves the prerogative to determine whether a request for particular time off may be granted due to circumstances and needs of the employee at that time.

#### The content of an employee handbook

As stated above, an employee handbook is the employer's opportunity to communicate its policies to employees. These policies may include such things as:

- The purpose of the handbook, including clear language that it is a statement of policies which do not form the basis of any contracts and do not constitute contracts;
- A company mission statement and other information providing the background and history of the company;
- Whether new employees have a probation period and if so the duration of same;
- Required hours of work;
- Required dress code;
- Rules for lunch periods and breaks;
- Attendance policies;
- Use of company computers and e-mail for personal purposes;
- Vacation and personal day benefits;
- Sick pay;
- Alcohol/drug policy;
- Anti-discrimination/harassment policy;
- Zero tolerance for violence in the workplace;
- Penalties for unapproved absences;
- Mileage policies; and
- Termination and employee discipline.

The above examples are a nonexhaustive list of policies an employer may wish to include in an employment handbook.

#### Judicial interpretation of employee handbooks

Illinois law is well developed on the interpretation of employee handbooks. The Illinois Supreme Court articulated the principles by which employee handbooks are interpreted

see EMPLOYEE HANDBOOK page 10

## Why contest OSHA citations? Avoiding later "repeat" citations is one good reason

This is part II of a two-part feature. Part I appeared in the spring issue of The Illinois Manufacturer magazine.

n spring 2013, *The Illinois Manufacturer* featured my article entitled "Dealing with OSHA in Illinois — the most common mistakes companies make," which discussed how to handle an OSHA inspection at your facility. This article addresses the next step in the process: what to do if you receive citations from OSHA following an inspection.

Within six months following the initiation of an OSHA inspection, OSHA will decide whether to issue citations to your company. If OSHA citations are issued, they will usually be sent to your company by certified mail. You will have 15 business days from receipt of the citation(s) to formally contest the citation(s). No extension of this time is available for any reason. Citations will have three components: the OSHA standard allegedly violated; the penalty; and, the required abatement date. Any or all components can be contested. If not contested, the citations will become final on your company's record, just as if a judge had found your company "guilty" of the violations.

Just as with other litigation, an OSHA contest can be, and often is, settled at any time during the process. Many contests settle before hearing.

The penalty amounts OSHA is allowed to seek are set by law, but vary widely. Occasionally we hear of some Fortune 500 company being hit with a multimillion dollar penalty by OSHA. These penalties make the news and grab a lot of attention. From OSHA's perspective, there is great fright value, or as OSHA calls it, "deterrent value," in such news. In other words, if the regulated community sees General Motors, or Proctor & Gamble or whomever, receiving a seven figure penalty for non-compliance with OSHA rules, OSHA hopes that other companies will work harder to comply.

However, the vast majority of OSHA penalties are typically in the \$1,000-\$30,000 range. In these cases, the question invariably comes up: why spend the money to pay lawyers to contest the citations, when it may cost as much in legal fees as the penalty? On this basis, many companies do not contest and simply pay OSHA. This economic reasoning may be short-sighted. Here's why.

OSHA calculates its penalty amounts based on several factors, one of which is severity of the violations. The most common levels of citations are called: "Other Than Serious," "Serious," and "Repeat." There are also "Willful" and "Criminal" levels. They are used infrequently and are beyond the scope of this article. "Other Than Serious" citations carry lower monetary penalties. In OSHA's view, however, if the violation has the potential to cause serious injury or death, the level cited is at least "Serious." By law, "Serious" citations carry a maximum penalty of \$7,000 per citation. So, for example, if a company is cited for four "Serious" violations, the most it will be penalized is \$28,000.

However, penalties for "Serious" citations deemed by OSHA to be "Repeat" carry maximum penalties of ten times as much, or \$70,000 each. So merely by being cited as "Repeat" instead of "Serious," the \$28,000 example above could become \$280,000. As is readily apparent, the penalty costs go up significantly when OSHA can cite your company for "Repeat" violations.

An employer can be charged with a "Repeat" violation when that employer has been previously cited for a substantially similar condition and the citation has become a final order of the Occupational Safety and

see WHY CONTEST? page 10



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#### EMPLOYEE HANDBOOK

Cont. from page 8

in Illinois in *Duldulao v. Saint Mary* of *Nazareth Hosp. Center*, 115 Ill. 2d 482, 505 N.E.2d 314(1987). In that case, the Court held that although an employee hired for an indefinite term is presumptively an employee at will, that presumption can be overcome by evidence that the parties contracted otherwise. The Court held that an employee handbook or policy statement may be found to create enforceable contractual rights if three factors demonstrating traditional requirements for contract formation are present:

First, the language of the policy statement must contain a promise clear enough that an employee would reasonably believe that an offer has been made. Second, the statement must be disseminated to the employee in such a manner that the employee is aware of its contents and reasonably believes it to be an offer. Third, the employee must accept the offer by commencing or continuing to work after earning of the policy statement. When these conditions are present, the employee's continued work constitutes consideration for the promise contained in the statement and, under traditional principles, a valid contract is formed.

#### 115 Ill. 2d at 490, 505 N.E.2d at 318

Subsequent to *Duldulao*, courts have determined that a clearly articulated disclaimer contained in an employee handbook can negate the first prong of the *Duldulao* test. That is, if an employee handbook con-

#### WHY CONTEST?

Cont. from page 9

Health Review Commission. As a matter of policy, OSHA looks to the most recent five-year period in determining whether to cite at the "Repeat" level. This determination is made at the company level, not the facility level. So if a company has ten facilities all part of the same corporation, violations at one can lead to "Repeat" citations at another.

If your company did not contest

tains an express disclaimer, it will be difficult for an employee to argue that he reasonably believed an offer was made. Thus, in Brand v. Comcast Corp., 2012 WL 5845639 (N.D. Ill. Nov. 19, 2012), the handbook contained an express disclaimer stating that: "[t]he individual provisions of the Employer Handbook are simply guidelines, and Comcast reserves sole discretion to interpret them and resolve any conflict between or among the policies. Comcast also reserves the right to change, delete, suspend, discontinue, or otherwise revise the Employee Handbook, or any indi-

A failure to apply policies consistently can lead to the very results that handbook is intended to alleviate including claims by an employee that he was treated arbitrarily.

vidual policy contained in it, at any time for any reason, with or without notice." *Id.* at \*4. Thus, the court found that the disclaimer foreclosed the employer's argument that the handbook's terms constituted a contract which the employee had relied upon and could enforce. *Id.* Other courts have held that ambiguous language, even in the absence of an express disclaimer in an employee handbook, is insufficient to create a

a citation a couple of years ago because it was cheaper to pay OSHA than to hire an OSHA lawyer to contest, and now you are being cited for violations of the same or similar OSHA standards (e.g. you were cited for fall protection before and now you are being cited for fall protection again) OSHA could choose to cite you for "Repeat" rather than "Serious" violations. As discussed above, it gets expensive fast when you are cited at the "Repeat" level.

While there is no guarantee that by contesting citations you will win

contractual obligation. Denis v. P & L Campbell, Inc., 348 Ill. App. 3d 391, 397, 809 N.E.2d 773, 778 (5th Dist. 2004) (ambiguities in progressive discipline procedure set forth in employee handbook precluded it from being sufficiently clear so as to convey an offer to the employee). See also, Lampe v. Swan Corp., 212 Ill. App. 3d 414, 571 N.E.2d 245 (5th Dist. 1991) (employee handbook which contained a disclaimer that the employer reserved the right to discipline any employee for any offense not specifically mentioned in the handbook did not create an enforceable contract). Accord. Anders v. Mobil Chemical Co., 201 Ill. App. 3d 1088, 1094-95, 559 N.E.2d 1119, 1122 (4th Dist. 1990) (disclaimer in employee handbook that its provisions were subject to change by the employer unilaterally and at any time and that it was not intended to constitute part of any offer of employment or to constitute a contract compelled the conclusion that it did not create an enforceable contract).

#### Conclusion

An employee handbook is a useful tool for an employer to communicate its policies to employees and promote consistency regarding the employer's expectations. An employee handbook may also be a useful defense tool of the employer to rebut claims for wrongful termination or unfair treatment. A well written employee handbook can provide clarity regarding the policies impacting the workplace without creating unintended contractual rights.

or settle them away, it is important to consider, with the input of a knowledgeable OSHA attorney, just what the prospects of prevailing are. If there is a reasonable chance to eliminate some or all of the citations, it is worth the effort, if for no other reason than to minimize your company's exposure to "Repeat" citations later. If nothing else, during the period of the pending matter, the citations will not be available to OSHA as the basis for a "Repeat" citation.

#### Manufacturers & Technology

#### **JOHN BEINTEMA**

## Variable frequency drives can significantly lower energy costs

otors are designed to operate at a constant speed. However, the devices they operate, such as pumps and fans, frequently run at a lower flow rate. Allowing the motor to run at a constant, high rate, under these lower flow conditions wastes energy. A variable frequency drive (VFD) can adjust the shaft speed of the motor drive electronically, allowing for flow or speed fluctuations, increasing motor efficiency and reducing energy costs. In addition to speed control, VFDs provide soft starting, which helps to maximize equipment life by reducing mechanical stress and voltage sags.

#### **How VFDs work**

A variable frequency drive is an electronic controller that adjusts the speed of an electric motor by modulating the power being delivered. It does this by converting alternating current (AC) to direct current (DC), and then converting the DC back to AC at a lower frequency and voltage level, which reduces the speed of the motor to the desired level. VFDs provide continuous control, matching motor speed to the specific demands of the work being performed.

#### **VFD** applications

VFDs are ideal for facilities with long operating hours and frequently changing load requirements for key equipment. Variable torque pumps and fans are the most common applications for VFD installations across a variety of industries. VFDs offer significant energy-saving opportunities for some processing equipment in manufacturing facilities, as well as heating, ventilation and air conditioning systems in commercial buildings.

#### Are VFDs a good fit for my application?

In general, the longer a motor operates, the more attractive it becomes as a VFD retrofit candidate. A motor/load system operating for 6,000 hours per year with throttled output will be three times more attractive for VFD retrofit than the same motor operating 2,000 hours per year. The issues of variable torque with speed and operating hours per year are much more important than motor size (horsepower) when deciding whether to retrofit with VFDs.

#### **Benefits and limitations of VFDs**

VFDs offer a number of benefits, some of which are easy to quantify, while others are less tangible. They also come with some limitations that should be considered.

#### Benefits

• Energy savings. By matching motor speed to equipment needs,

motors run more efficiently and use less energy. VFDs on pumps for example, can reduce energy use by up to 50 percent.

- Increased equipment life. Single speed drives start a motor abruptly, resulting in high torque and current surges. VFDs gradually ramp up motors to operating speed (soft-start), reducing mechanical stress. This can lower maintenance and repair costs and extend motor life.
- Improved control. By matching motor speed to process or operational requirements, flow or speed variations can be achieved more rapidly and more accurately than with other control methods, improving overall performance.
- Low maintenance. VFDs are easy to install and have few moving parts, resulting in little wear and

see LOWER ENERGY COSTS page 12



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#### LOWER ENERGY COSTS

Cont. from page 11

tear compared to mechanical dampening.

#### Disadvantages

• The initial cost of installing VFDs can be expensive. However, energy savings from these devices in many applications can lead to a rapid payback and lower maintenance and repair costs to provide additional long-term savings. In addition, cash incentives through the Ameren Illinois ActOnEnergy\* Program

can help offset project costs and reduce the payback period.

- VFDs can produce harmonic distortion, which can adversely affect power quality in some situations. There are a number of solutions to correct this problem. For example, installing harmonic filters can help to reduce distortion.
- Standard motors with VFDs can experience increased degradation of winding insulation. Using special inverter-rated motors with VFDs will eliminate this problem.
- VFDs should not be used with conventional AC motors in applications where the unit must maintain high torque as the



## A perfect {motor} match.

A variable frequency drive (VFD) allows a motor to match output based on the demand of the equipment — saving energy during less demanding times. The award-winning ActOnEnergy® Program can cover up to 75% of the project cost to install VFDs on your motors. It's just one of the many ways your facility can save energy – and money – with energy efficiency.

Learn more about a VFD project at *ActOnEnergy.com/Match*.

FOCUSED ENERGY. For life.





speed is reduced (machine tools, for instance).

#### **Real result: Archer Daniels Midland**

As a global powerhouse in the agribusiness industry, IMA member Archer Daniels Midland Company (ADM) is known for bringing the "harvest to the home." These days, ADM is also bringing home a harvest of energy savings, with a little seed money from the Ameren Illinois ActOnEnergy<sup>®</sup> Program.

With 265 processing plants and over 400 sourcing facilities around the world, ADM has a voracious appetite for energy. To make the most of that energy — and ease its impact on the environment — the Decatur, Illinois-based company hired Thomas Mort to fill the new role of Global Program Manager, Energy Efficiency in 2011.

"As our corporate energy champion, my job is to develop, lead, implement and administer energy efficiency programs all around the world," says Mort.

Mort quickly put his own energy into learning about opportunities available through the Ameren Illinois ActOnEnergy<sup>®</sup> business programs. His efforts paid off when ADM received ActOnEnergy<sup>®</sup> Staffing Grants at several facility locations.

"The grants help companies free up internal resources or hire external project managers to develop an energy efficiency project," says Bob Baumgartner, Industrial Energy Efficiency Manager for ActOnEnergy<sup>®</sup>.

Rather than using the extra funds to complete a specific project, ADM took a more strategic approach. "We needed to find common projects that could be replicated at all of our plants," says Mort, who knew where to look first to pump up the savings.

"We have pumps and fans at almost every facility, and they are among our biggest energy users," he says. "We used our Staffing Grant to hire the best pump experts in the field."

In early 2012, those experts (Mike Pemberton of ITT Plant Performance Services and Tom Tucker of Kinergetics) began studying the efficiency of pumps at select plants in Decatur, Peoria and Quincy. The survey identified a number of quick fixes that led to an impressive payback for ADM.

Those fixes included relatively *see* **LOWER ENERGY COSTS** *page 22* 

#### NATIONAL SAFETY CONSULTING/SAFETY TEMPS

## **OSHA regulatory update: New guidelines** for Hazardous Communication Standards

he Occupational Safety and Health Administration (OSHA). the arm of the U.S. Department of Labor charged with worker safety and health, has issued new guidelines for its existing Hazardous Communication Standards (29 CFR 1910.1200) which affects all employers in Illinois using chemicals in the workplace. Also known as HazCom, these regulations pertain to chemicals and hazardous materials used by workers but especially those known to be harmful.

After many years of work in preparation, these standards are being brought into alignment with the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals adopted by the United Nations. This is a worldwide initiative to promote standard criteria for classifying chemicals according to their health, physical and environmental hazards prompted by today's international nature of trade and commerce.

This in no way alters the existing requirements which employers have under the standard to establish and maintain a HazCom program. However, there are additional responsibilities with which companies must comply during a multiyear phase-in period.

Most pressing this year is to assure all affected employees are trained on the elements covered under the new Globally Harmonized System by December 1, 2013. Included are new pictograms, labels, hazard statements, signal words, Safety Data Sheets (SDSs), etc. OSHA wants to be sure that when employees begin to encounter the new labels and SDSs in their workplaces, they will be familiar with them, understand their meaning and be able to use the information effectively to stay safe.

other actions to be taken in order to maintain compliance depending on a company's status as chemical manufacturer, supplier or user (please refer to the table below from OSHA's Website).

In 2012, OSHA's statistics indicate that the HazCom Standards were the second most cited standard for General Industry just after Fall Protection. To the government compliance officers, this evidences a lack of attention to the regulations by employers thus creating a hot button issue for them. That, plus the new GHS guidelines, will heighten their interest and focus when they show up at your door for a jobsite inspection. Don't be caught unawares.

For further information on the regulatory requirements, go to OSHA's Website at www.osha.gov/dsg/hazcom.

Subsequent deadlines mandate

This table summarizes the phase	e-in dates required under the revised Hazard (	Communication Standard (HCS)
EFFECTIVE COMPLETION DATE	REQUIREMENT(S)	WHO
December 1, 2013	Train employees on the new label elements	Employers
	and safety data sheet (SDS) format.	
June 1, 2015	Compliance with all modified provisions of	Chemical manufacturers, importers,
	this final rule, except:	distributors and employers
December 1, 2015	The Distributor shall not ship containers	
	labeled by the chemical manufacturer or	
	importer unless it is a GHS label.	
June 1, 2016	Update alternative workplace labeling and haz-	Employers
	ard communication program as necessary, and	
	provide additional employee training for newly	
	identified physical or health hazards.	
Transition period to the effective	May comply with either 29 CFR 1910.1200 (the	Chemical manufacturers, importers,
completion dates noted above	final standard), or the current standard, or both.	distributors, and employers

**GHS FFFFCTIVE DATES** 

IMA member National Safety Consulting/Safety Temps provided this article. They can be reached in Chicago at 630-396-6767 or in St. Louis at 636-532-2999. Or, visit their Website at www.nationalsafetyconsulting.com or www.safetytemps.com.

#### Constellation — Innovative products to match your needs

## How recent wholesale market changes impact long-term electric purchasing strategies in the Ameren service territory

ue to recent changes in the rules of the Midwest Independent System Operator (MISO) and other market developments, the Ameren market is in some transition. These changes could have a material impact on managing longterm electric spend and setting budgets. Introduction of a voluntary capacity market administered by MISO, changes to transmission rates and recent agreements with generators to act as system support resources are all contributing to challenges in creating a reliable budget. The changes, their potential cost implications, and potential strategies to mitigate the costs are reviewed here.

Capacity charges: Ameren is part of MISO (an independent regional transmission organization responsible for reliable and efficient transmission of electricity to customers in its footprint). In an effort to ensure sufficient generation capacity is available to meet customer demand, MISO has introduced a voluntary capacity market to work in conjunction with the bilateral market that exists for capacity sales in the MISO region. The bilateral market and the MISO administered capacity market allow generators to be compensated for making supply available to meet customer demand. MISO plans to conduct a voluntary capacity auction in March of each year to set the capacity price commencing June of the same year for a 12-month period.

MISO administered the first voluntary capacity auction in March 2013.

The system wide clearing price for the June 1, 2013 to May 31, 2014 planning year was \$1.05 per megawatt-day. This result is reflective of the region's ample supply of generation as well as a robust transmission system. The clearing price is also a result of limitations in the capacity market design which attracted all available generation supply but only four percent of the MISO region load to participate. The remaining load serving entities secured their capacity requirements through self supply or the bilateral market yielding little transparency into the true cost of capacity in the MISO region. While the true price of capacity isn't yet reflected in a reliable market signal, bilateral capacity costs are still trading relatively low considering that there is more supply than what is needed to meet demand. MISO expects generation supply to fall considerably over the next 2-3 years as older coalfired generation is retired. This may create some upward pressure on capacity costs over time.

**Transmission rates:** In December 2012, Ameren filed proposed revisions to its transmission tariff in order to transition from setting rates on a historical basis to one that is forward looking. This change went into effect on January 1, 2013. MISO has also approved Multi-Value Transmission Projects which were developed to accommodate delivery of wind generation associated with state Renewable Portfolio standards. Sixteen projects have been approved at an estimated cost of \$5.6 billion, which are to be allocated across all customers in the MISO footprint. These two developments have increased rates; however, transmission charges are likely to remain a small percentage of a typical bill.

System support resources: MISO has signed System Support Resource (SSR) agreements with two generation facilities in its footprint that otherwise had planned to retire. SSR generation is needed to meet local reliability needs. SSR contracts cover the cost of maintaining the facility and are allocated to customers in the facility's local area that are benefiting from the facility continuing its operations. MISO has identified one facility in Ameren that is needed for reliability and will likely require an SSR agreement. The SSR costs of this Ameren facility are not yet available, but are not likely to result in a significant increase in costs at this time. We will keep you posted on this as it develops.

Implications on long-term strategy: Viewed individually, each of the developments outlined above are not likely to have a material impact on electricity budgets in the short run. However, when viewed in totality, these market changes could have a material impact on customer electric spend over the long run. It is important that customers are aware of these changes. This knowledge allows customers to make informed decisions about whether to fix or pass-through these components in their prices (if applicable) and then budget for them. Once these developments are contemplated, we recommend customers then focus on developing an energy purchasing strategy consistent with the needs of their businesses. In addition to the opportunity for multi-year and shortterm agreements or even spot prices, customer can build portfolios of fixed and variable priced layers of energy.

Deciding on how much energy to buy, when and for how long reflects a strategic approach to purchasing energy. It focuses on what is likely the biggest driver of a typical bill. Energy users in the Ameren service territory that have any questions about these changes are encouraged to contact Constellation. Visit www.ima-net.org and click on the Constellation banner in the top left hand corner for more information.



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## Using data to forecast, plan and manage your energy spend

### Why a strategic procurement plan is important

Both energy demand and energy market prices fluctuate, and business budgets and goals change over time. An energy strategy that can be actively managed and dynamically deployed can take advantage of market movements and end-use operational flexibility to lower total cost over time.

Rigid, inflexible "set it and forget it" procurement strategies for energy supply can make it harder for energy managers to actively manage and document costs. Companies that follow a strategic plan can track budgets, reduce energy consumption, lower costs, and monetize their energy through load response programs and integrated energy efficiency measures. An enterprise energy program integrates energy procurement strategy, forecasting and reporting with a business or agency budget, energy cost reduction, and sustainability strategies.

#### Analyze your company needs

A strategic energy plan should be in line with your corporate objectives, goals and business risk profile. Successfully managing energy cost can help a company meet overall energy and budget goals such as cost reduction, energy conservation and budget benchmarking, in addition to additional goals including branding, environmental stewardship and employee satisfaction.

Different companies have different priorities, and a strategic energy program can help reach them. Companies also have different risk profiles and philosophies on risk management. Because a strategic energy program can affect other

areas of your company (from finance and treasury to the production floor), understanding your company's position on risk management at the beginning of the development process can save you from problems down the road and position energy procurement as a key player in helping meet overall company strategic initiatives. And the final aspect in the analysis phase is documenting your energy management resources. Determining your staff and resources available to input data, review reports, and compare and execute procurement options is a key component for choosing the type and quantity of data you want to utilize, as well as the resources and expertise of potential energy suppliers.

## Comparing energy procurement options

Comparing actual energy procurement scenarios is the best way to assess options and determine your perspective on risk management. By using forward prices and historical demand data, you can view multiple scenarios in which different percentages of your load are fixed versus index price. In Example 1 (next page) you can see five options for projected costs for a customer looking to purchase for a one-year term. The fixed percentages vary from 25 percent of the load up to 100 percent.

Visualizing energy data allows you to see that projected costs are lower as you increase the percentage of load on index rates, primarily due to the fact that fixed rates generally incorporate an embedded cost for the rate certainty (often referred to as Variable Load Cost). Option 3 (with 63 percent fixed) is expected to be \$3,476 less than the 100 percent fixed scenario. You can also view potential high-case and lowcase cost scenarios associated with each layering option. Because the 100 percent fixed option has no supply cost variability, it will always meet the expected cost (based on the assumption that the demand for the energy is the same as the historical demand). The options with a lower percentage of the load fixed have more potential for variance in cost than the 100 percent fixed benchmark due to exposure to the variable index market prices. Example 1, on page 17, is for illustration purposes only.

(See Example 1) of option 4 (with 44 percent fixed). Although the expected budget is \$356,930, the cost could be as high as \$386,866 and as low as \$333,688, due the fact that 56 percent of the load is subject to market volatility. This means that engaging this option can potentially save the customer as much as \$28,455 from a 100 percent fixed price program — or cost an additional \$24,723.

Layering scenarios can also be viewed per month to allow you to plan for any specific seasonal demand changes you might expect (production schedules for manufacturers, tourist or convention bookings at hotels, heating, and cooling seasons, etc.) or allow you to plan your energy budget to match with financial timelines, including quarterly earnings reports. In the chart on page 18 (Example 2) you can see both the expected energy costs per month (dotted line) and the potential high and low-range cost for each month. In the table, you can also see the forecasted on-peak and off-



Example 1 — for illustration purposes only peak load (kWh) as well as the average peak demand by month. By reviewing this analysis with a knowledgeable and integrated energy provider, you can evaluate if you have options to shift your load and reduce energy demand. This can be accomplished with load response or energy efficiency programs which would allow you to lower your overall total energy cost.

## Using data to manage your plan and energy spend

Once you determine the best option for your business based on this diverse set of data inputs, you can move onto tracking your budget and your plan.

Ongoing tracking of strategy performance over time makes managing cost and risk decisions considerably easier. Many companies monitor costs and usage on a monthly basis.

The monthly report should allow you to compare the forecast information to the actual results, and see how close your planned cost and demand are to the estimated figures. This will allow you to adjust your program as needed based on empirical and quantifiable results. In Example 2, you can see that for the month of August the sample customer had a forecasted consumption of 4,205,570 kWh and an electricity budget of \$340,651. The strategy analysis shows the hedging strategy employed and the usage and cost associated with that particular strategy during that month. Comparing the actual energy demand to the forecast allows you to examine how your energy is being used. This is especially important for enterprise companies that have multiple facilities and multiple accounts.

When actual consumption varies greatly from forecast, you may be able to identify a change in a process, a problem with a thermostat or chiller, or an occupancy shift. You can also identify opportunities for load shedding through temporary means such as Load Response, or permanent measures such as energy efficiency programs. A variance to the budget report will show you on a monthly basis how your actual costs compare to the forecasted costs, and how your budget compares to the forecasted budget.

In Example 2 (page 18), the customer's August actual unit cost was slightly lower than budget unit cost. What's more, because their actual consumption was 115,293 kWh lower than the forecast consumption, their actual cost ended up at four percent lower than their budget cost.

Many customers utilize these types of reports in strategy sessions with finance teams and senior leadership in order to monitor the management of one of their largest expenses. Data can be broken out at the state or account level for optimal analysis, which enables you to best manage your total energy cost components such as energy quantity and energy price over a specific time period.

#### The value of being informed

Energy markets are complex and volatile. The factors affecting these markets are constantly changing, which can impact your opportunities, your risk and your benchmarks.

Energy prices are influenced by a host of diverse factors such as weather, energy fundamentals (generation output, rig counts, transmission infrastructure), macroeconomics (employment and manufacturing trends), and federal and state-level legislative and regulatory policy.

Customers who are informed on the key issues can be proactive about potential shifts in prices. This information equips them to lock in rates, layer in additional hedges, adjust energy usage, and participate in load response programs.

## Taking data from information to implementation

With the overwhelming amount of data available, few energy management professionals have the time to review and process all of this information. Many lack the energy industry expertise required to make the data actionable on a consistent basis; even the largest companies have small teams (or sometimes just one individual) dedicated to energy procurement and management across multiple regions and facilities. Many mid-size and smaller businesses may not even have a dedicated employee responsible for energy cost management. To achieve the greatest benefit from using the available data, it is recommended that

see USING DATA page 18

#### **USING DATA**

Cont. from page 17

businesses work with an experienced energy supplier that has the following key requirements:

- Integrated energy expertise in power and gas supply, load response, energy efficiency, and on-site generation
- Proven experience managing contracts and project implementation in order to clarify all options and the implications of each option
- A national footprint to serve multiple locations
- Knowledgeable, accessible resources, including an informed sales team, technical market analysts with a thorough understanding of energy markets and prices, and an engaged energy policy team active in legislative and regulatory policy in all competitive markets across the country and at the federal level
- Robust reporting capabilities that can simplify complex data into digestible and actionable formats
- Real-time energy management software to give you immediate insight into your energy usage and energy market prices, allowing you to monetize your energy

consumption through load response programs.

#### About i2i from Constellation

i2i helps customers determine how much load to fix as part of managing energy costs, utilizing tools that help businesses analyze, develop, execute and maintain an active energy management strategy. The i2i tools enable customers to create customized energy purchasing plans that can be refined over time in response to evolving market conditions.

Visit www.ima-net.org and click on the Constellation banner in the top left hand corner for more information.



Example 2 — for illustration purposes only

Manufacturer

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Constellation — Provides products and services to manage energy cost and risk over time

## New law and increasing labor disputes threaten less costly labor in China

hina is now the world's largest manufacturer, a title the U.S. held until recently. There are many reasons for China's rise in this sector, one significant factor being the availability of less costly labor. However, labor costs have risen significantly in recent years and a new change in the law, coupled with increasing disputes, is expected to make the employment landscape more costly for manufacturers in China. In several recent surveys1 by the American Chamber of Commerce in China, rising costs topped the list of member concerns.

#### **Use of dispatched workers** to be curtailed

Amendments to China's Employment Contract Law (ECL) took effect on July 1, 2013. One of the amendments, if strictly enforced, will severely limit the current widespread use of dispatched workers by manufacturers.

Dispatched workers are outsourced workers that are obtained through labor dispatch agencies, instead of being directly employed. The ECL, which became effective in 2008, imposed substantial long-term employment obligations and additional costs on employers. As a result, the use of dispatched workers has sharply increased over the past few years. There is no employment relationship between companies and dispatched workers, so this arrangement can provide employers with flexibility and cost savings. However, China never intended to allow the long-term use of dispatched workers for full time positions.

The ECL previously stated that employers should generally use dispatched workers for temporary, aux-

iliary or substitute positions. The ECL did not define these categories and employers have interpreted the wording of the provision to mean that dispatched workers can also be used for positions that do not fall within these categories. As a result, employers have been able to use dispatched workers indefinitely and for a significant portion of their fulltime workforce.

The amended ECL clearly states that dispatched workers can only be used for temporary, auxiliary and substitute positions, defined as:

- A "temporary" position is one that lasts for no more than six months.
- An "auxiliary" position is one that provides a supporting role to an employer's core business.
- A "substitute" position is one where the worker is hired to temporarily replace an employee

who takes time off to study or go on leave.

Employers will also likely be limited in the proportion of at least one category of dispatched workers that comprise their total workforce. The Ministry of Human Resources and Social Security has just issued draft regulations for public comment that state the number of dispatched workers used by a company for auxiliary positions cannot exceed 10 percent of its total number of employees.

The amended ECL also provides that dispatched workers must be paid the same as if they were directly hired employees. This reinforces the equal pay for equal work principle set out in the Labor Law.

Under the amended ECL, an employer can be fined up to

see LABOR IN CHINA page 20

EAST anghai

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#### LABOR IN CHINA

Cont. from page 19

RMB10,000 (approx. US\$1600) per dispatched worker if it violates the new rules.

In light of this change, companies should review their use of dispatched workers to ensure compliance with the revised ECL. The Ministry of Human Resources and Social Security already has a campaign underway to get local labor authorities to review the use of dispatched workers by employers within their jurisdictions. It's been estimated that up to 60 million workers in China are working under labor dispatch arrangements. Therefore, companies and the government face a daunting task to comply with and enforce, respectively, the new requirements. Companies using dispatched labor need to consider what they need to do in order to comply with the new requirements, as well as monitor further developments, particularly the views of the local labor authority and the proposed manner in which they plan to enforce the restriction and their timelines for doing so.

Merely dismissing those dispatched workers whose positions do not comply with the new ECL is not an option, however. Under the terms of most service agreements with labor dispatch agencies, a company cannot easily return a dispatched



worker before the end of the agreed dispatch term. This means that, in most cases, companies will need to offer a financial incentive to dispatched workers to secure their agreement to end the arrangement.

#### The rise of collective bargaining

Over the past few years, there has been a sharp increase in work stoppages and strikes in China as employees have demanded face-toface negotiations with management. Manufacturing is the most strikeprone sector. During the same period and partially as a result of this trend, the Chinese government has been pushing a campaign to get all foreign invested companies to unionize and engage in collective bargaining. Most collective bargaining involves remuneration related issues, which is also putting upward pressure on labor costs in China.

Companies need to have a plan in place to address collective bargaining. As briefly mentioned above, the country's only official union, the All-China Federation of Trade Unions (ACFTU), has had a campaign for the past several years to get foreign invested companies to unionize. Typically, local ACFTU officials will visit companies within their jurisdiction to put pressure on management to get a union organized. If a company is uncooperative or is seen to be dragging its feet for too long, the ACFTU often reaches out directly to the company's employees. This can lead to an employer losing control and influence over the unionization process, which can have disastrous consequences as many foreign companies have found out the hard way. Additionally, in some locations the tax authorities collect and hold labor union dues (two percent of payroll) in escrow until companies establish a union.

Chinese labor unions are nothing like their Western counterparts. The ACFTU is run by the government and the Communist Party, and in turn controls the unions in companies. The ACFTU has had impressive results in its campaign to get foreign invested companies to unionize, but this alone will not really help to strengthen employee rights. Company level labor unions are typically viewed more as mediators than vigorous advocates of employee rights and interests. There are additional notification requirements when a company has a labor union, but unions did not historically exercise many of the powers that are given to them under the law. In most cases, the labor union representative is closely aligned with management.

Therefore, setting up a labor union will not likely have the negative impact in and of itself that most companies envision. The bigger issue with establishing a labor union is that the government also has a campaign to get all foreign invested enterprises with labor unions to engage in collective bargaining and sign contracts with employees that apply minimum standards. The ACFTU has been slower in getting foreign invested companies to engage in collective bargaining and sign collective contracts, but there are signs that it is increasing its efforts in this area.

Regardless, companies need to be prepared to resolve labor disputes through collective bargaining even if they don't have a labor union. Many companies have found themselves in situations where relatively minor, isolated incidents escalated to where employees walked out and local management overreacted by threatening to fire any who did not immediately return to work. These situations prompt swift intervention from local governments worried about threats to "social harmony," and they will get directly involved in mediating any dispute. This mediation may or may not work out in the employer's favor. With a contingency plan in place to handle minor issues before they erupt, companies can engage employees in discussions and hopefully resolve these situations without losses and negative PR.

Workers are becoming increasingly aware of their rights and are quick to organize employee representatives to negotiate on their collective behalf. Even if a company has a labor union, employees often side-step it and take on the negotiations themselves. As mentioned above, union representatives are often closely aligned with management so employees typically do not trust the union to represent their best interests.

see LABOR IN CHINA page 29

## **Nicor Gas Energy Efficiency Program**

esidents and businesses in the Nicor Gas service territory can save energy and money through the Nicor Gas Energy Efficiency Program. The Nicor Gas Energy Efficiency Program provides customers with cash rebates, comprehensive business and home energy assessments, energy education and simple tips and resources to make energy use in local businesses and homes more efficient and often times more affordable. The Nicor Gas Energy Efficiency Program offers many opportunities for manufacturers, distributors and business owners to bolster sales of energyefficient equipment and work toward a more energy-efficient Illinois. Below are just a few of the energy and money-saving opportunities offered by the Nicor Gas Energy Efficiency Program.

#### Business Energy Efficiency Rebate Program

Energy efficiency is not only beneficial to the environment; it also may improve your bottom line. Nicor Gas business customers can take advantage of rebate offers ranging from \$25 to \$9,000 for the replacement, repair or maintenance of inefficient space heating equipment, food service equipment, steam traps and more. Rebates are available for commercial facilities (food service, hospitality, industrial, manufacturing, etc.) and institutions (private education, healthcare, etc.). For more information visit NicorGasRebates.com/businessrebates.

#### **No-cost Opportunity Assessment**

With the no-cost Opportunity Assessment, a Nicor Gas Energy Efficiency Program representative will work with your team to pinpoint natural gas-saving opportunities that can benefit your business. A preliminary phone call to determine any immediate gas-saving opportunities is followed by an on-site visit from a

Nicor Gas Energy Efficiency Program representative who analyzes all of the space and process heating equipment improvements that can be made to optimize energy efficiency. Burner upgrades and opportunities for controls will be assessed, along with heat recovery opportunities, steam system optimization and applications for insulation improvements. While Opportunity Assessments are available for all qualifying Nicor Gas business customers, funding is limited and is available on a first-come, first-served basis. For more information visit NicorGasRebates.com/facility-assessment.

#### **Facility Assessment Programs**

Large commercial, industrial and manufacturing customers can save energy with a comprehensive Facility Assessment that provides a detailed report of natural gas-saving opportunities, including cost-savings potential, project implementation costs and the various incentives available through the Nicor Gas Energy Efficiency Program. The cost of the assessment is co-funded by the Nicor Gas Energy Efficiency Program along with an initial investment from the customer that is reimbursed after the project is implemented. For more information, visit NicorGasRebates.com/facilityassessment.

#### Steam Trap Survey Assessment Program

One of the best ways to improve the energy efficiency of your operations is through the maintenance and repair of inefficient steam traps and steam trap systems. The Nicor Gas Energy Efficiency Program surveys and assesses your steam systems, providing valuable information on ways to improve steam efficiency and extend the life of steam equipment. Upon the conclusion of the Program's survey and assessment of a business' steam system, you can receive up to \$7,500 in rebates to help offset the costs of any Program-recommended maintenance or equipment upgrades. For a limited time, the Nicor Gas Business Energy Efficiency Rebate see NICOR GAS page 22



Nina Newhouser is with Resource Solutions Group on behalf of the Nicor Gas Energy Efficiency Program in Chicago. Nina can be reached at 312-344-1534 or nnewhouser@rsgrp.com. Or visit NicorGasRebates.com for more information. Nicor Gas is an IMA member.

#### LOWER ENERGY COSTS

Cont. from page 12

simple modifications to pumps, propellers and impellers, and more efficient combinations of valve control settings.

The studies also recommended the use of two small variable frequency drives that allow ADM to slow down fructose and dextrose pumps, rather than closing valves off entirely.

As Baumgartner explains, "VFDs allow you to adjust the motor's speed and dial in to what's needed instead of running full speed all the time."

The study also analyzed each of several pumps that feed water into a cooling tower — as well as the collective impact of those pumps — and recommended impeller modifications to boost efficiency. As a result, the plant was able to operate effectively with eight pumps rather than 10.

"When you can turn pumps off entirely, that's where the really big savings are," says Mort. By the end of May 2012, ADM had finished 32 pump projects that reduced annual energy use by 48 million kilowatthours.

"We got a great return on that investment," says Mort. And the sav-

#### NICOR GAS

Cont. from page 21

Program is offering double the rebate for the repair or replacement of qualifying steam traps. To learn more, visit NicorGasRebates.com/businessrebates. **Business Custom Incentive Program** 

The Business Custom Incentive Program offers projects related to building envelope, commercial-sized space heating, heat-intensive manufacturing processes and more, up to \$500,000 to complete a natural gassaving project that is not eligible for existing Nicor Gas Energy Efficiency Programs. You are encouraged to act quickly, as energy-saving project incentives of up to \$500,000 may only be offered through May 31, 2014.

A designated Nicor Gas Energy Efficiency Program representative ings don't stop there.

Those initial pump improvements will churn out an almost endless stream of savings when they are replicated on thousands of additional pumps at ADM plants around the world. In fact, ADM has planned more than 90 pump-related projects in 2013 as a result of the studies funded by the ActOnEnergy<sup>®</sup> Staffing Grant.

"To do energy efficiency projects, you first have to identify and define them. This is often a stumbling block for businesses — that's why we leveraged the Staffing Grant opportunity to define projects," says Mort. "The ActOnEnergy® Staffing Grant is a great resource for businesses that don't have the time or expertise in-house to complete energy efficiency projects."

As ADM proves, when you point the corporate spotlight on energy efficiency, you can feed the world and your own appetite for savings.

#### Resources available for VFD projects

The Ameren Illinois ActOnEnergy<sup>®</sup> Business Program has a number of valuable resources designed to help with your VFD energy efficiency project. The program offers free energy consultations, which can help identify the

will work with you every step of the way to ensure the application process is smooth and transparent. To find out how to get started with

The Nicor Gas Energy Efficiency Program offers many opportunities for manufacturers, distributors and business owners to bolster sales of energy-efficient equipment and work toward a more energy-efficient Illinois.

a pre-approval application, call 312.344.1569 or email customrebates@NicorGasRebates.com. best applications for a VFD and detail how to secure cash incentives to offset project costs. ActOnEnergy\* can provide businesses with a cash incentive of \$100 per horsepower controlled for motors of 500 horsepower or less, which could cover up to 75 percent of the project cost. The program also offers \$0.08 per kWh saved for VFD installations on motors larger than 500 horsepower.

To schedule an energy consultation or inquire more about VFDs, please call us at 866-800-0747. You can also get more information at ActOnEnergy®.com/VFD.

#### About ActOnEnergy®

Since 2008, the award-winning Ameren Illinois ActOnEnergy® Program has helped Illinois businesses save over \$132 million in energy costs. Utilizing more than \$40 million in cash incentives, business customers have been able to cut project costs, decrease payback periods and move energy efficiency projects forward.

#### References

U.S. Department of Energy (DOE). Variable Speed Pumping: A Guide to Successful Applications. May 2004.

## Business Custom Incentive Program case study: Metal-Matic, Inc.

Metal-Matic, Inc., is a world leader in the production of welded and drawn-over mandrel carbon steel tubing for standard and specialty applications. Through the Business Custom Incentive Program, Metal-Matic, Inc., received a \$100,000 rebate that they used for industrial furnace burner replacements. "With our new burners, we've cut back on gas usage more than predicted, have increased production, and no longer experience unplanned downtime," said plant engineer, Mike Malwitz. The high costs of burner replacements had previously been insurmountable, but with the significant rebate from the Nicor Gas Energy Efficiency Program plus their lower energy costs for reduced usage, the burner replacements became a costeffective option.

## Planning your manufacturing facility expansion

#### By Boris Hornjak, Graycor Construction Company

or the first time since the late 1990's U.S. manufacturing employment is growing. While nowhere near enough to compensate for the 5.9 million manufacturing jobs lost between 2000 and 2010, addition of over 500,000 U.S. manufacturing jobs since January 2010 is an encouraging trend.

Is the driving factor behind our manufacturing renaissance a realization that we can make it better here or are we just no longer "rich enough to buy cheap stuff" from overseas? Perhaps a combination of both, or a realization after the 2008 financial crash that the "service economy" has produced no tangible wealth.

Our increasing labor productivity, declining energy costs, educated work force, political and economic stability, and declining labor cost differential versus overseas are some of the factors contributing to the U.S. manufacturing resurgence. However, the main cause appears to be tremendous recent advances in product design software and manufacturing automation. Ever closer integration between research and development, software and automation, design and production, results in innovation speed and shorter product development cycles. This demands physical proximity among all functions in the manufacturing process.

Many low value-added types of manufacturing and assembly are never coming back. But for any complex and sophisticated products, it makes no sense to keep the design in the U.S. and manufacturing half a world away. If we can keep an edge in research and innovation, we will be able to control the downstream of the manufacturing chain. It is after all "location, location, location" — making it where you invent it now matters the most.

What does all this mean to you, the American manufacturer? Defining and expanding the niche that could only be filled by domestic manufacturing means first and foremost staying on top of the technological developments in your industry. This requires constant improvements to your design, automation, production machinery, processes and facilities.

Let's review some of the specific factors that may drive your facility modernization or expansion needs:

- Changes in production demand, including projected increases, "reshoring," new product models, and changes in product mix.
- Production equipment obsolescence. Your current equipment may no longer be adequate to manufacture new products.
- Infrastructure obsolescence. The current mechanical, electrical, process, plumbing or fire protection systems in your facility may no longer be sized adequately to handle the new production equipment.
- Regulatory changes. You may have to upgrade manufacturing equipment and facilities to comply with applicable Code revisions, industry standards and certifications, including OSHA, ISO, ANSI or FDA.
- Revised production equipment layout due to automation, and changes in manufacturing technology.
- Increase in research and development; integration of labs and testing facilities into the production process.
- Evolution from functional department "silos" such as design, engineering, purchasing, quality control and production into flexible cross-functional teams on the shop floor. This leads to the integration of design, pilot plants, rapid prototyping and 3D printing into the production process, and requires these functions to be in close mutual proximity.
- Improper layout of functional areas, causing lack of production flexibility, low production density and underutilization of plant capacity.
- Improper layout of production

equipment, causing unbalanced production flow, processing delays, lack or overflow of needed parts, and poor access for maintenance and repairs.

• Inadequate warehousing facilities, resulting in inadequate or excess inventory, poor integration of parts delivery to sub or final assembly lines.

You could probably think of many other reasons why your plant may need an expansion or upgrade, but in each case if your facility cannot meet your production needs, it is costing you money — whether as lost opportunity or waste. A careful analysis of all above factors is needed to determine if and how your facility needs to be modified.

The "lost opportunity" costs may be easier to identify, since you could assign costs to every item you cannot sell due to lack of capacity. However, the "hidden waste" costs resulting from poor layout of existing facility, functions and equipment, and inadequate manufacturing processes are harder to identify and quantify without a detailed analysis of your entire operation. One way to uncover hidden costs is to implement "lean" manufacturing techniques such as value stream mapping, to evaluate lead times, equipment line balancing, unnecessary material handling and travel distances, defect and rework statistics, cost of machine underutilization or lack of capacity. Simulation software can be used to map and analyze multiple factors and constraints. Some simple rule of thumb methods such as the Johnson's Rule, Shortest Path Algorithm, the "Shifting Bottleneck" Algorithm, resource leveling, and line balancing can also be used for quick evaluations. Software and heuristic methods can analyze quantifiable, "mathematical" factors, but sensitivity to human factors must be analyzed qualitatively. It could be that the workforce morale is low

#### **EXPANSION**

Cont. from page 23

due to inadequate lighting, poor air quality or disorganized management. Or the real cause of low productivity and product defects may be lack of employee training, not obsolete or improperly positioned equipment.

Once you have identified the underlying factors that drive the need for your facility improvements, and the associated costs that you will incur if you continue with the status quo, the next step is to design your new or improved work processes. It is important to remember that the physical facility is designed around your production processes, from "inside out."

Industrial Engineering literature identifies several plant layout options, primarily by the type, method and quantity of products made.

#### **Process layout or layout by function**

The process layout groups production equipment by the process they perform (Figure 1). If you are a custom or limited quantity product manufacturer, this may be the most efficient layout. Products are moved in a batch from station to station and manufacturing processes are applied sequentially.

In a steel fabrication example below, all products needing drilling, cutting or welding are processed at their respective work areas. However, backtracking or path-crossing of products and downtime between tasks due to differing task durations are some of the disadvantages.

#### **Product layout or flow-line layout**

The product layout locates production equipment in sequence of operations (Figure 2). If you manufacture products in a continuous process, product layout is probably the best option. The product moves in sequence of production from one machine to the next, which is adjacently located. The entire line can be in a variety of shapes: linear, U, or S, depending on space available, and to minimize transportation distance. A disadvantage is that since the entire process is linear, it must be balanced to avoid underutilization or bottlenecks. As we say in construction, all tasks are on the crit-





Figure 3 — cell layout

ical path. Line balancing involves timing the production cycle (Takt Time in Lean parlance) to the slowest task in sequence.

## Manufacturing cell or group technology layout

Compared to the product layout, where all products move from machine to machine in batches, or process layout, where each product moves as a single item, in a cell layout similar products are grouped together to take advantage of their common design and manufacturing requirements.

A plant scale example is the auto industry "platform" concept, where

#### **EXPANSION**

Cont. from page 24

essentially identical car models are produced under different labels in the same factory. A work cell therefore includes all machines needed to manufacture a family of products in one location (cell).

#### **Fixed position layout**

In the fixed position layout, (Figure 4) the product being worked on stays in place from the beginning to completion of all manufacturing operations, and machines are brought to the product. If you manufacture very large or fragile items that are impractical to move such as planes, ships, locomotives and turbines, this may be the most economical process. For products that involve assembly or multiple manufacturing steps, the manufacturing process can be arranged in a "reverse" product flow, where the "assembly line" machines move and sub-assembly parts are brought to the final assembly point, while the product stays in place.

After determining the optimal manufacturing layout, it is time to translate it into a spatial program. There are several facility planning methods in use for manufacturing facilities

- Apple's Plant Layout Procedure
- Reed's Plant Layout Procedure
- Muther's Systematic Layout Planning (SLP)

SLP is the most commonly used method, as it provides a step by step analytical process, taking into account the flow of materials, products and people between different functions, adjacency and separation requirements, and space requirements. SLP involves the following analytical steps:

- Perform a material flow analysis

   i.e. "from-to" charts, to determine the volume and distance of movement between functions (Figure 5).
- Perform an activity relationship analysis to determine the adjacency requirements and relative importance of distance between spaces (Figure 6).
- Determine spatial requirements



Figure 4 — fixed position layout



Figure 5 — material flow analysis/flow betwen departments (items, trips)

for each function and department: size and dimensions (Figure 7).

- Develop preliminary layout/space relationship diagram alternatives (Figure 8).
- Develop final layout adjusted for space size and dimensions, and "fitted" into the building (Figure 9).

All good ideas start with a pen and a blank sheet of paper, so if you are contemplating an expansion or retrofit, this is the best way to get going. Start with identifying the reasons for improving your manufacturing processes or expanding your

see **EXPANSION** page 26

#### **EXPANSION**

Cont. from page 25

facility. Then sketch out the possible layouts of machinery, equipment and departments that meet your criteria. Using post-it notes cut to scale to represent work stations or equipment is also helpful. Once you have outlined your plan on paper, you can implement software analysis to validate your assumptions and formulate the final layout options. Here are some of the most common facility layout packages:

• CRAFT (Computerized Relative Allocation of Facilities Techniques) is a heuristics model that uses pair solution comparisons to minimize materials-handling cost

(continued on next page)



SPACE/ ROOM NAME	ROOM DIMENSIONS					
			-	AREA/ROOM	#Rooms	T OTAL AREA
Clean Assembly Area(22,040s1)						17,225
Gow ning Area	15	x	25	375	t	375
Class 100,000 ISO 8 Clean Room	147.5	x	100		1	14,750
Packaging	25	x	40	1,000	. 1	1,000
Class 10,000 ISO 7 MODULAR Clean Room	10	x	20	200		400
R&D Lab	20	x	25	500	1	500
Rivate Office	10	x	20	200	t	200
Extrusion & Molding Area(15,220sf)						16,956
Rivate Office	10	×	20	200		200
Gow ning Area	15	x	25	375		375
Class 100,000 ISO 8 Clean Room	132.3	x	100		1	13,230
Compress or Room	20	x	27	540	1	540
Cryogentics	25	×	27	675	1	675
Component Prep & Grinding	17	x	30	510	1	510
Notil Repair and Cleaning	23	x	23	529	1	529
Wire Cell	21	×	23	483	1	483
Nil Room	18	×	23	414	1	414

Figure 7

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- ALDEP (Automated Layout Design Program) and CORE-LAP (Computerized Relationship Layout Planning) use the SLP process to maximize total closeness rating (TCR) within the facility dimensions.
- PREP (Plant Re-layout and Evaluation Package) analyzes multilevel structures based on distance between functions.
- Modification of your ٠ existing facility is probably less expensive than relocation. If the scope of expansion warrants a completely new facility, or if you are considering a relocation, there are numerous other factors that will influence your decision for new site selection, including access to transportation, proximity to your suppliers and customers, local government incentives and many others. Specifics of facility planning and site location

will be a topic for a future article.

Boris Hornjak is a project executive with Graycor Construction Company, a nationwide builder of manufacturing and industrial facilities based in Oakbrook Terrace, Illinois, and a publisbed author of two professional books and numerous trade articles. He can be reached via email at boris\_bornjak@graycor.com. Graycor Construction Company is a member of the IMA.

Figure 9

## Tyson Foods rolls out new corporate website

IMA member Tyson Foods, Inc. in July launched a new corporate website that features hundreds of its employees and uses more visuals and graphics to tell the story about America's leading meat and poultry company.

The new TysonFoods.com is designed to help the public learn more about such things as the company's relationship with family farmers, food safety and product development efforts, international operations, and hunger relief initiatives.

"We're a dynamic company of people who make a wide variety of foods for customers around the world, so we've created a very dynamic website that reflects who we are," said Sara Lilygren, executive vice president of corporate affairs. "We're proud to invite people to visit the new site, which we believe tells our story more accurately, conversationally and personally."

Current videos include Tyson "Team Members" describing Who We Are and What We Do, as well as the Tyson FarmCheck<sup>™</sup> program and the Discovery Center, the company's research and development facility. The site also includes downloadable photos, videos and information graphics about the company, as well as U.S. and global maps of the company's locations.

In addition to the TysonFoods.com corporate site, the company will continue to maintain Tyson.com, which is a consumer site that includes information about products, recipes and promotions. Tyson Foods' social media activity can be accessed through the website, or followed directly by going to: Facebook.com/TysonFoods or on Twitter @TysonFoods.

#### RockTenn's business helps clean up our environment



Pictured are (l to r) Illinois Rep. Stephanie Kifowit, Senator Linda Holmes and Rep. Linda Chapa LaVia. Ed Curtis, VP and General Manager of RockTenn (far right) explains company procedures.

The RockTenn paper recycling facility in Aurora has been in operation since 1909. They have been a "green" manufacturer for more than a century, long before the term became an industry buzzword. When you see school children toting around their schoolbooks, you can bet that it's the recycled materials paperboard from RockTenn's Aurora facility that gives







crystal Clean is one of the fastest growing parts cleaning and industrial waste services providers in the United States. Is your shop faced with increasing challenges? Do you wish you could lower your cost, increase your quality of service and have more peace of mind? Crystal Clean, your IMA partner can help.

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Check out our website; www.crystal-clean.com or call 877-938-7948 and ask for Jim Skelton for further information on our services and special IMA member only discounts and pricing those textbook covers the strength to stand up to the abuse of school lockers, desks and backpacks.

IMA's Associate Director of Government Affairs & Membership Jerry Peck accompanied state legislators on a tour of Rock Tenn's Aurora facility in early June.

IMA member RockTenn is a fortune 500 company with 26,000 employees in 210 facilities around the world. Seventeen of those facilities are in Illinois including the Aurora recycling mill. Statewide they employee nearly 1,700 workers. RockTenn is the largest paper recycler in North America.

## Ford expands bio-based parts list with rice hulls

Rice is the latest sustainable ingredient to be added to Ford's F-150 pick-up, the best-selling truck in America.

The manufacturer announced recently that the 2014 Ford F-150 will use plastic reinforced with rice hulls, a byproduct of rice grain, in the truck's electrical harness. The hulls will replace a talc-based reinforcement in a polypropylene composite developed specifically for Ford.

The company said it will use at least 45,000 pounds of hulls, sourced from farms in Arkansas, in the first year of production. The hulls add to the soybeans and the significant amount of recycled materials already in the F-series production process.

Ford uses around 10 million pounds of recycled cotton a year in F-series truck upholstery. Ford estimates every 2014 F-150 contains enough recycled cotton to make the

## LABOR IN CHINA

Cont. from page 20

#### Conclusion

Illinois manufacturers that have facilities in China need to be prepared to address rising labor costs. Additionally, they should put in place contingency plans for effective collective bargaining if and when equivalent of 10 pairs of jeans.

In addition, some F-150 trucks have cylinder head covers made with EcoLon, a nylon resin produced from 100 percent post-consumer recycled carpet; seat covers made from soybeans; and shields, underbody covers, wheel liners and interior panels made from recycled bottles, tires or plastics.

The new F-150 also will offer a factory-installed package that allows the engine to operate on either natural gas or petrol, potentially reducing emissions of both CO2 and harmful particulates and gases.

"The 2014 F-Series exemplifies our continued efforts to use recycled content in our vehicles," said John Viera, Ford global director of sustainability and vehicle environmental matters. "We can have greater impact in this case because of the size and sales volume of this product."

- - -

#### Caterpillar Foundation and Global Communities launch \$4.4 million partnership to improve job prospects for youth in Middle East and North Africa

The Caterpillar Foundation and Global Communities recently announced a \$4.4 million, three-year partnership to prepare youth in Jordan, Lebanon and Yemen for the labor market and job placement. The Middle East and North Africa Youth Empowerment Strategy (MENA-YES), which targets young people aged 15-29, will place special emphasis on disadvantaged youth, low- to medium-level skilled individuals, women, rural youth, and individuals working in hazardous environments.

such need arises to mitigate losses and higher costs as a result of such situations. Companies using dispatched labor need to review how they use these workers and determine what, if any, changes need to be made in light of the new law. If it is determined that these individuals need to be directly employed to comply with the revised law, manufacturers should be prepared for higher labor costs.

MENA-YES will emphasize building solid linkages with the private sector and potential employers to determine the precise nature, scale and timing of needed skills to ensure placement of trainees. By building upon its 18-year presence in the region, Global Communities will provide up to 1,920 youth with demand-driven training to prepare them for labor opportunities. At least 60 percent of those placed in internships/apprenticeships or receiving technological training will be on track to be employed or to pursue further training 180 days after completion of program activities.

Additionally, more than 1,000 youth will receive training in financing, market development and business management skills. Of these, at least 230 youth will be linked with banks and credit opportunities.

The program is critically important given that the region has the highest youth unemployment rate in the world, estimated in 2010 at 25 percent, and 30 percent for young women alone.

Caterpillar is an IMA member.

#### **Advertiser Index**

Ameren Illinois12
Citibankifc
Constellation15 & bc
Dream it Do it Illinoisibc
Heritage-Crystal
Clean, LLC28
JCS Computer Solutions20
McGladrey5

1. See American Business in China, 2010 and 2011 White Papers; The American Chamber of Commerce People's Republic of China; 2012 Business Climate Survey, The American Chamber of Commerce People's Republic of China; China Business Report 2011-1012, 2012-2013, The American Chamber of Commerce in Shanghai.

## **New IMA members**

ABBVIE North Chicago, IL

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ECOLAB Joliet, IL

**ECOLAB** Roscoe, IL

ECOLAB INC Elk Grove Village, IL

GLAXOSMITHKLINE Chicago, IL

GOOGLE Chicago, IL

## **2013 Calendar of events**

September 18, 2013 IMA Breakfast Briefing: What Conceal & Carry and Medical Marijuana Laws Mean for Employers 8:00-10:30 am, Mon Ami Gabi Restaurant, Oak Brook Center Mall, Oak Brook

#### October 18, 2013 IMA's Women in Manufacturing Council Meeting

9:00 am-12:00 noon at G.W. Electric, 305 W. Crossroads Parkway, Bolingbrook For Women in Manufacturing only — Main topic will be "The importance of training the next generation," presented by Melissa Basa of IMEC. Additional presenters include Representative Kay Hatcher (Legislative Update) and Annamarie Dorr (How can the DCEO help me?). IDEAS, INC. Lombard, IL

**IDI FABRICATION, INC.** Lemont, IL

JOHN B SANFILIPPO & SON, INC. Elgin, IL

MIDWEST FOOD PROCESSORS ASSOCIATION Madison, WI

MOMENCE PACKING COMPANY, INC. Momence, IL

MONDEL Z GLOBAL, LLC Deerfield, IL

MORAINE VALLEY COMMUNITY COLLEGE Palos Hills, IL

MULLINS FOOD PRODUCTS Broadview, IL

NALCO COMPANY Naperville, IL

NATION PIZZA AND FOODS Schaumburg, IL **NESTLE BEVERAGE** Chicago, IL

PEORIA TUBE FORMING CORPORATION East Peoria, IL

**PREMIER FABRICATION, INC.** Congerville, IL

REXAM US Chicago, IL

SEGAL MCCAMBRIDGE SINGER & MAHONEY, LTD Chicago, IL

TEAM READINESS, INC. Chicago, IL

VILLAGE OF ELWOOD Elwood, IL

WATERSHED FOODS, LLC Gridley, IL

**XTEN INDUSTRIES** Lockport, IL

October 29, 2013 IMA Breakfast Briefing: An Update on the Affordable Care Act 8:00-10:30 am, Ditka's Restaurant, Two MidAmerica Plaza, Oakbrook Terrace

November 1, 2013 IMA's Small Manufacturers Council Meeting 8:00 am-12:00 noon, Marriott Hotel-Naperville 1801 N. Naper Blvd., Naperville

November 14, 2013 IMA's Annual Sales Tax Seminar 8:30 am to 12:00 noon CST, NIU-Naperville Campus, 1120 E. Diehl Road, Naperville A Sales Tax Seminar specifically for manufacturers. JoAnna Simek, Tax Manager with Wolf & Company, will update you on recent tax law changes, how manufacturers are impacted by sales and use taxes, review exemptions, deductions and exclusions. She'll also discuss manufacturers' purchase credit and multi-state taxes.

#### December 6, 2013 IMA's 2013 Annual Luncheon

10:00 am-2:00 pm, JW Marriott Chicago Hotel, 151 West Adams Street, Chicago — Keynote speaker: Darren Woods, President, Exxon Mobil Refining & Supply Co., Vice President, Exxon Mobil Corporation. Topic: "Energy Forecasting and its impact on manufacturing."

related to all IMA events. For more information, contact Kimberly McNamara at kmcnamara@ima-net.org, 800-875-4462, ext. 9371

Visit http://www.ima-net.org/calendar-of-events for information, pricing, registration, etc.,

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